

SEQUENCE LISTING

<110> Bjornsdottir, Soley
Kong, Augustine
Thorgeirsson, Thorgeir E.

<120> Inversion on Chromosome 8P23 is a Risk
Factor for Anxiety Disorders, Depression and Bipolar
Disorders

<130> 2345.2058-003

<140> 10/571,865
<141> 2004-09-17

<150> PCT/US2004/030699
<151> 2004-09-17

<150> 60/504,307
<151> 2003-09-19

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| tttgagagacc | ttgtgaaaat | gtagactctg | attccctagg | tcaagggctg | agattctgca | 120 |
| tttctttcaa | aatcccaggt | gatgctgctg | ctgctgctgc | tgctgctgct | gctgctgctg | 180 |
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| ggatatacta | taacattcta | cacacacaca | cacacacaca | cacacacaca | cacacacaca | 120 |
| cataataatc | ttctataaca | gggttctaac | tgttcatatg | gaggcatctc | aaaaatata | 180 |
| tttgaagtga | tcaaagcgga | ggtgcagaac | aaggagtaca | gcatgatctc | attcctgtta | 240 |
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| gcaccatgta | catagaaagt | gctcgttaaa | tggatggatg | gatggatgga | tggatggatg | 300 |
| gatggatgga | tggatgggtg | catggatgga | tggatgaata | gatcaatgga | tggataaaca | 360 |
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| gaagatagag | cccgttcact | ctgcagcttc | cgcaggggta | cagagtgatg | gcagccatgg | 780 |
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| ctaattcatc | cccaagttac | aaacgtgggt | catggagctt | tagtaaaaat | tattttttaa | 960 |
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| gaagcagagg | gtcaggggtc | gggtcagcac | cgagtgtgct | cgggtgaact | gcaagtcttg | 840 |
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| ctgactgtag | tagtacaaag | aggtcagaag | tcagtctggg | atttgcttct | ccatcaacaa | 120 |
| cttggttggg | attgggggtg | gtatttccctg | tgtggataac | ttgcagcact | tcctcttctt | 180 |

10/55

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agtgatgggt cttggaattt cttttatttc tccagtgaga atcacttcaa tcttcaggca 300
agataacctg ctgtctcctg cccctctctc ccattctgtc cgggatattg tgaagctact 360
tcttcagttt catgaacctg gattttggcc aaacccttga tcattcatct tagaagctag 420
atttcctttt cgaagccaca actctgggaa aggtcttcac agccagttcc tgatgttgct 480
gagctgatct tgtccattct sagtcaaggt aggatgacag ctccccgtga gaaaaaaaaa 540

```

11/55

```

taggtgttgc ataagagaac atcttggcta tttatgaaag attttctatg cttctgtttt 600
aagtttgttt ttcaattaca aaagggactc attcttttgt ataaaatttg gaaagctaag 660
ttaagtttag agaagagggt aaaatcattc ttaatcccat aattctacca tggagaaatt 720
ttgttagtat tttggtgtat tctcaatttc ctctgcagtt ttttacattg ttgaaatcat 780
gctatttata ctatttcac ctttcttccc actgaaaatt gtatgataag catttcctca 840
tgtcactgaa gtcactgata agtaatat ttaatagcacc ataatat ttttgtggg 900
ttttgtccta aggttgaaca gataggttgt ttctagtttt atttttttaa aaatattatt 960
agcaatgctg agatgaacat ttgtgtgtat atatctctgg a 1001

```

```

<210> 59
<211> 22
<212> DNA
<213> Homo sapiens

```

```

<400> 59
gaccatgatt aagcaaaaca aa 22

```

```

<210> 60
<211> 19
<212> DNA
<213> Homo sapiens

```

```

<400> 60
tcgctcagaa acaaacc aa 19

```

```

<210> 61
<211> 222
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 32, 113, 116
<223> n = A,T,C or G

```

```

<400> 61
gaccatgatt aagcaaaaca aataacacaa ancaaaaatc ttcctatttc ccagagtcct 60
gggtttatca caaatgctat taagggttac agttttgtcc tttgataaaa ganganccac 120
gtttggaaat tgctattacc ctttattttt caacacacac acacacacac acacacacac 180
acacacacac acacacacac tcctacattg gtttgtttct ga 222

```

```

<210> 62
<211> 1001
<212> DNA
<213> Homo sapiens

```

```

<400> 62
caaggaattg ctacagcaca tgctgttggg gtgcctgggtg tggggctcct agagggctcc 60
tttaagcctg cctctccctc tctggttagtt gtaactagaa aggggtattca ggaaaaaaca 120
caaatttctc tctaggtctt ctcagcctcc ttaccaggca gcaagagctg agagaacttg 180
gagtagaata ttctaaacct tgctcctgta tctgctttct tgcccttaaga gaaaaatctt 240
ttcccccaga ttctgctgtc ttacactca ttctcatctt accgatctct ttaaaatttc 300
agtcattctc ggagaccata gggcagaacg caaagaacat aacataggag tcaaatggag 360
cggaacactt cagtcactca cgtgatggct gtgtgtcctt gggtaagttc ttagcttct 420
ctgagcccca acttccttat aacatcattg aagtcctaac agctgtgaga atgacacatg 480
atgcctgcaa atttcataaa wcagtgcctg gtgggttagta gttgggttttg aaaagggttat 540
gctaaaattc caggggtgata cttttctagg tagtcccttt ttgcaggtag ctttcagagg 600
taaaacctga gacccaaca cggtccacct ctgcattttt tttttttttt ttttgacatg 660
gagtcctgct ctgtgccag gctggagtgc agtggcgtga tgtcggctca ctgcaagctc 720
cgcaccccg gttcacgcca ttctcctgcc tcagcctccc gagtagctgg gactagaggc 780
tcaggacacc acgctcggct aattttttgt attttttagt agagaccggg tttcaccttg 840
ttagccagga tggctctgat cttctaacct cgtgatccgt ccgcctcggc ctccctaagt 900

```

12/55

gctgggatta caggcgtgag ccaccgcgcc cggccttttt gtttgcttgt tttttgagat 960
 ggtttcttgg tctgttgccc agactctagt gcagtggcac g 1001

<210> 63
 <211> 20
 <212> DNA
 <213> Homo sapiens

<400> 63
 gtcctctggg tgtttgcagt 20

<210> 64
 <211> 20
 <212> DNA
 <213> Homo sapiens

<400> 64
 caggctctgc tctccttagc 20

<210> 65
 <211> 259
 <212> DNA
 <213> Homo sapiens

<400> 65
 gtcctctggg tgtttgcagt gctgagtgc ttgggggttg tgtgtgtgtg tgtgtgtgtg 60
 tgtgtgtgtg tgagagagag agagacagag agaggagag aggagcacag tagcttgtgc 120
 aaagacctcc tttgctatag aagcctgatt ccaaacctgt cttctttccc agaagtaatt 180
 acaatacaca ttgctgcttc tcttcaatgt gcctgtgttc tggaagctgt gtgtctccag 240
 ctaaggagag cagagcctg 259

<210> 66
 <211> 25
 <212> DNA
 <213> Homo sapiens

<400> 66
 caaatcaata taccacttca ggact 25

<210> 67
 <211> 20
 <212> DNA
 <213> Homo sapiens

<400> 67
 gcagtaggca catggcaaat 20

<210> 68
 <211> 168
 <212> DNA
 <213> Homo sapiens

<400> 68
 caaatcaata taccacttca ggactgggtg tgtgtgtgtg tgtgtgtgtg tgtgtgtgtt 60
 tcttctcttc cctccctcc tccccttctt cctcctcctt ctttagacaa gtactatgtt 120
 ttaagattta ggtatataat tctacttaat ttgccatgtg cctactgc 168

<210> 69
 <211> 24
 <212> DNA
 <213> Homo sapiens

<400> 69
 gagaatgctt gacccccaaaa aatc 24

 <210> 70
 <211> 24
 <212> DNA
 <213> Homo sapiens

 <400> 70
 cctaagagag tgctatgtgc tccc 24

 <210> 71
 <211> 162
 <212> DNA
 <213> Homo sapiens

 <400> 71
 gagaatgctt gacccccaaaa aatcaagatc aaagatcagc ctgggcaaca aagtgagacc 60
 ctgtctacac acacacacac acacacacac acacacacac acagacacac acaaagtata 120
 cccaagtact acaaaaatgg gagcacatag cactctctta gg 162

 <210> 72
 <211> 22
 <212> DNA
 <213> Homo sapiens

 <400> 72
 cccagataag atcttggttc ag 22

 <210> 73
 <211> 20
 <212> DNA
 <213> Homo sapiens

 <400> 73
 accacgggtga ccctcaatta 20

 <210> 74
 <211> 253
 <212> DNA
 <213> Homo sapiens

 <400> 74
 cccagataag atcttggttc agaaaaaaaaat gttaaaacag ccagtattat agaatttata 60
 tttaaattat aatatagctc atataattta tatctaaaac gtgtgtgtgt gtgtgtgtgt 120
 gtgtgtgtat gaagtttaggt ggtaaataat ccaattgact tgtaagttt tgggctaata 180
 atatgcagag ttatcagcaa tagggaagac tgaagacttt gctcctctta gagtaattga 240
 gggtcacctt ggt 253

 <210> 75
 <211> 23
 <212> DNA
 <213> Homo sapiens

 <400> 75
 cttcagattg gaaagtcagg aga 23

 <210> 76
 <211> 22
 <212> DNA
 <213> Homo sapiens

<400> 76
 aaagctctca gcaaggactt ta 22

<210> 77
 <211> 240
 <212> DNA
 <213> Homo sapiens

<400> 77
 cttcagattg gaaagtcagg agagattttc aatcttcggt tcttcccact aaatgtacta 60
 aaatagaaac tggtgttggt tttaactaaa atcagagcag actggaatta cggaaaagaa 120
 tattatgaat gggtctatat atatatatat atatatatat atatatatat 180
 gtagacagaa cttaacattt atgttttttt gttattttta aagtccttgc tgagagcttt 240

<210> 78
 <211> 20
 <212> DNA
 <213> Homo sapiens

<400> 78
 gatcttggct ggcagaagaa 20

<210> 79
 <211> 21
 <212> DNA
 <213> Homo sapiens

<400> 79
 gctccgagaa gaacatatgg a 21

<210> 80
 <211> 289
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 241
 <223> n = A,T,C or G

<400> 80
 gatcttggct ggcagaagaa tagaatcaag aaaattttct caaaggaaga agagaattgc 60
 actgaagctt tgggaataaa aagaagttag ccacgcaaag atagagtctt ccaggtgaag 120
 gaaaggcata tacaaaggaa tggcagtaag aaagaacaaa tcatgttcaa gaagctggaa 180
 ggagttggcc gtggctgagc gttgggtgag atgacagtgg agaggtgaag aggccgacag 240
 ngggggcagg gccagaagca gagagggttc catatgttct tctcggagc 289

<210> 81
 <211> 20
 <212> DNA
 <213> Homo sapiens

<400> 81
 tgcatatgtc tggcctgtct 20

<210> 82
 <211> 20
 <212> DNA
 <213> Homo sapiens

<400> 82

tttcttcctg gctttccttg

20

<210> 83
 <211> 350
 <212> DNA
 <213> Homo sapiens

<400> 83
 tgcataatgct tggcctgtct cctggcacct ctgctttctc ttcatagaagc acccaggtaa 60
 cccattatcc agagctctta ctaattctgt tcagtgtttg tttcttgctg ctggggcagg 120
 aggtggagaa caaaggggaat gaggggaacat tgagaaattt ctcttcattg tgaccagcta 180
 gggcaaattg tccttggtct tctaaccag cagcaagtat tcattgcaaa aacacacaca 240
 cacacacaca cacacacaca cacacacgca tgccatttat gcaaaacaca 300
 ttagtgaggg tatttttctc ctttaagcac caaggaaagc caggaagaaa 350

<210> 84
 <211> 21
 <212> DNA
 <213> Homo sapiens

<400> 84
 gcactcacag ctttgcaagt a

21

<210> 85
 <211> 20
 <212> DNA
 <213> Homo sapiens

<400> 85
 tccctgagtg gagaatctgg

20

<210> 86
 <211> 138
 <212> DNA
 <213> Homo sapiens

<400> 86
 gcactcacag ctttgcaagt attgctgctc agtgaaaatg taagtgccat acatgtgtac 60
 catcacacac acacacacac acacacacac acacacacac acacaccccc ttctagaccc 120
 agattctcca ctcaggga 138

<210> 87
 <211> 20
 <212> DNA
 <213> Homo sapiens

<400> 87
 aggatcagca tggaatttgg

20

<210> 88
 <211> 18
 <212> DNA
 <213> Homo sapiens

<400> 88
 cccatccgta aatgttgc

18

<210> 89
 <211> 383
 <212> DNA
 <213> Homo sapiens

16/55

<220>

<221> misc_feature

<222> 303

<223> n = A,T,C or G

<400> 89

```

aggatcagca tgggaatttgg ccaaaacaga tataagtcag atttaggtct caagcattga 60
ggcctgatgc agcattttatt tattttattta gagacagggt ctctgtcgca agactggagt 120
gcactgctgc aacctcagtt cactgcaatc tcagccttcc gggctcaagc tattctccca 180
cctcagcctc ctgaatagca ggggctacag gtatgcacca ccacaccggg ctaatttttt 240
gtagtttttag tagaggcaga gttttgccac attgccagg ctgggtcttga actcctgagc 300
tcncacttgc ctcagcctcc caaagtgctg ggattacagg tatgagccac tgtacctggc 360
ctgatgcaac atttacggat ggg                                     383

```

<210> 90

<211> 21

<212> DNA

<213> Homo sapiens

<400> 90

```

tcctgagtcc aggctatttc a                                     21

```

<210> 91

<211> 21

<212> DNA

<213> Homo sapiens

<400> 91

```

gcctccagag tacatggaca g                                     21

```

<210> 92

<211> 303

<212> DNA

<213> Homo sapiens

<400> 92

```

tcctgagtcc aggctatttc ataagtgaat tatgaaacta ttattttttt ctgaattgaa 60
aaataaatga ttataaaaaga aaaaattaag aaaaaagtga aagttatcta tatttctacc 120
atcagagaca actgctgtta acagcctgga tatattcttt caggcttttt ctattctctt 180
ttacacacac acacacacac acacacgtgt gtgcatgcac acttaataag acctaaaata 240
actgcatttt gttaaagtta catgttgaag gaaaaaagtc tactgtccat gtactctgga 300
ggc                                     303

```

<210> 93

<211> 1001

<212> DNA

<213> Homo sapiens

<400> 93

```

ctagataact taaaaaatgt tttttttctt caggcttatg ctcatactaa caagctctgt 60
cgaattatth caatgtgcgg aataaaaaggc aagaattatt ttctgggtgca gtttagacct 120
tggatgagta ggggttatgca gctgtttgct gcagtagttt tggggagaca cacacctgac 180
ttaagctatg tgaatttgga tatgaagttc caagtgtgaa atatgaacca aaggatttct 240
cttaacgtaa cgatggaact caagcctgaa ctatttttgt tcattaacaa cctggcagtt 300
atthttttcag aataaggaga tttatgaaag agctgaagtc tgggcttcat tttgcgtgta 360
catttgcttc cgctgttgcc ggatggttgg taaaggaaat tgatagagtt tttaaagtga 420
ggactgtatt gtttacttta tgtgttgttt taaagtagga aggaacacag tcgccctgct 480
atcagcctct ggtttcttgt sccagtggcg ctaagagtca actcttctgc ctgacagtgc 540
ctgtccttac cgtgcctgtg ctgagatagc tcctcctggc ttcagggcct ttatggctga 600
aacttcaatt atatatataa aatatataaa ataattatta atataactta atataataat 660
atataataac ttttttgaga cagagtcttg ctctgtcggc caggctggag tgcagtggca 720
tgatctcggc tcaactgcacc ctccgtctcc cggattcaag cgattctcca tacctcagcc 780

```


17/55

| | | | | | | |
|------------|------------|------------|------------|------------|------------|------|
| tcttgagtag | ctgggattac | aggcgcccag | cagggtttcc | ccatgttggc | caggctggtc | 840 |
| ttgaactcct | gacctcagga | gatccacctg | ccttggcctc | ccagagtgc | gggattacag | 900 |
| gcgtgagccc | ctctgcccgg | ccaactttgt | atttttgc | aaagtttgat | ctgtacattt | 960 |
| tgaatcattt | ttatcctttt | tccaattttc | caactaacca | a | | 1001 |

<210> 94

<211> 1001

<212> DNA

<213> Homo sapiens

<400> 94

| | | | | | | |
|-------------|------------|-------------|------------|------------|------------|------|
| gttacatgat | gaccattagt | taaatgaact | aaagaatgat | tgagcttata | ttctgtagta | 60 |
| tcgtatttgg | aagtttgtgt | ttcaataaaa | ctcttttagt | ataattcagg | ccaataggta | 120 |
| ttaatattaa | tgaatgtcag | taaatggaag | ctatgttttt | accttctagc | acaaacatct | 180 |
| ttagaaaattt | tattacgact | gtgtatgtgt | gtccagtggc | tgactttcca | agcagttatt | 240 |
| agaggagatc | tgagttttta | gcttctgcat | tatgattcat | ggtgaatatt | tatggaagag | 300 |
| aagtgtttct | acaaatatgt | aaaaatatgt | gtgagtga | gaaatggctc | ccagtatgac | 360 |
| agaagaaaaat | atcctaaaga | gatccacagt | tatctgcagt | ttccccaagg | ttgtgtttac | 420 |
| ataaaaaaaga | cattgtttta | tgttctagca | tcaagagatg | attttacgat | ataacaagtt | 480 |
| ccacaaagaa | ctctcgtaag | rtgggttctca | gtcccggcat | aactgctacg | gagatcacag | 540 |
| agcaatatta | ttctctggat | ttattgggtt | tgctgcattc | tgttagcatc | attcatattt | 600 |
| ttctcccatg | ggtaccactt | tcctctcttt | tcctaatacc | aagatatgga | gactcattta | 660 |
| tgccgtggag | tgtgatgctg | ggaaatgaat | gcttgcctat | tacctctctc | cacaggacct | 720 |
| ttcatgacca | tacgtcgatg | tctgccgcct | cagtataaat | aggcacattc | agaaatgtgt | 780 |
| tctctagtga | agggcatggt | ggcttggtgg | aaagcacagg | gacttcacgt | ctggactgcg | 840 |
| agtcagagct | gtgcgtcatg | tgcttactgg | ctgtgtgacc | ttggataaat | ttgcctcagt | 900 |
| tttctcattt | gtaaaacaga | cagtcgctat | ttctgggaat | agatgagata | ataaggaaag | 960 |
| aacctagaat | ggtacctggc | tcctgccagt | tgcacagaat | g | | 1001 |

<210> 95

<211> 22

<212> DNA

<213> Homo sapiens

<400> 95

| | | | |
|------------|------------|----|----|
| tggcggttgt | tattaatacg | tg | 22 |
|------------|------------|----|----|

<210> 96

<211> 22

<212> DNA

<213> Homo sapiens

<400> 96

| | | | |
|------------|------------|----|----|
| tccattctca | ttctcattct | ca | 22 |
|------------|------------|----|----|

<210> 97

<211> 299

<212> DNA

<213> Homo sapiens

<400> 97

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| tggcggttgt | tattaatacg | tgatttcact | tttcatttat | ttcattttta | tgtccattgt | 60 |
| ggcttctaac | ctcatatttc | acacatagca | ggactcagt | aaatacttaa | taaatcaatg | 120 |
| aatgcaagta | atgactatgt | atatactagt | ggagaaggaa | ggaggggagg | gaaaggagag | 180 |
| gagagggcga | gagaggtggg | ccaggcagag | gagagaagag | agggagggag | agggagagag | 240 |
| agagggagag | ggagagggag | agggagagag | aggagaatga | gaatgagaat | gagaatgga | 299 |

<210> 98

<211> 1001

<212> DNA

<213> Homo sapiens

```

<400> 98
ttgtaggact tttagaaaac atgggggtgt gcctttggcc acacgcatgc ttgtggatct 60
acaagaacag cggtcctgta actcttcagg gaaggggcac cacatatctg tcctgtcacc 120
atggcaaagc tgaaggggtc tgcagagcta cccagcatgc tgctgggtgt gttgtaacca 180
agcagagggc aagattctcg ccatgagaat tgatgtacat gtctagcatg tgaagcatcc 240
taagggctga ggtgggttcc tgaaacctgt ggaggaaaat gctcagtga agaagccaaa 300
gaaaaaggca ccaggctcag cgggagcacc cgcctggaga agcatacttt gtgaggatca 360
gcagaaagga gctgagtgtg gaagctgtcc ccaagtcata gcacaaaagt attcaaaaaga 420
aaggatttct ggattgtttt ttaaaaaaca aaactgtgat gtaaatagat aattgtgtct 480
tgtggctctga ttaggaatgt ragtggatcc agagtacagt ggggctgagg cagtgggaagt 540
atTTTTTTgt gTTTTTTTTt ttaactttta ggtcagggat acgtgtgcat gtttgtttta 600
tgggtaaaat tgtgtcacgg gggttcgttg tacagattat tttgtcacc ggataccaag 660
cctagcacc caatagttaa tttttctgct cttgtccttc ctctgccct ctacactcaa 720
ggaggcccca gtgtcttttg ttcccatctt tgtgtccatg tggtcacatc atttagctcc 780
cacttctaag taaaaacatg aggtatttgg tttcctgttc ctgtgttagt ttgctaagga 840
taatatccgc cagctccatc catgttgctg cgaaagacat gatgtcgttc ttttttatgg 900
tggcatagta ctccatgggtg tatatgtacc acattttctt tttacattct gtcattgggc 960
attaggttga ttctacatct ttgctattgt gaatagtgtc g 1001

```

```

<210> 99
<211> 21
<212> DNA
<213> Homo sapiens

```

```

<400> 99
tcaaagggaa gtgtcttggg g 21

```

```

<210> 100
<211> 21
<212> DNA
<213> Homo sapiens

```

```

<400> 100
ccctccagag ttcacagaat g 21

```

```

<210> 101
<211> 137
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 102
<223> n = A,T,C or G

```

```

<400> 101
tcaaagggaa gtgtcttggg gtctcactgg cacatatcca gcatgatgtt ggtaaataac 60
cgagtcccgg tgtggcggtat ttctccctga atcttgactg anaaactact gaagcccatt 120
ctgtgaactc tggaggg 137

```

```

<210> 102
<211> 1001
<212> DNA
<213> Homo sapiens

```

```

<400> 102
gtgatactga tgacagtggg ctgaaaactg gcctttggaa gtcatagaca caatgaattt 60
acctgtcacc accaccacct cccctaggaa cttctgaagg acatctacat tccgtagaaa 120
taaagtttta aattgaagga aaaaaatatt caaacttaca tcatgactta agcacctaag 180
agacttaaag aacatatcaa aattacaact gtgtcactga atcaaattta catttttgac 240
acaatcatta caaaatcatt acttggttaag aattttccaa tagtcctact ggattgtttt 300
tatttagaat taccttaaga ttctctgcat tctactcaca attttaatct gtcattactc 360

```

19/55

```

atgaatatct gtgtctatga gattttttat tatgagattt tagtttccct taagatttgg 420
gttctcatat gaaatcttca ggaagaacct taaagaaagt tcaaattttc ataaagccct 480
tttccaaaca cattgacact scaaatTTTtg acctgactgg taaagatctg tgattgtgat 540
tgttcaaagt tgattctcta aaaataccta agaggccgac cactacatct tccgactca 600
tgaaaggcag ttttccagat ctgacatgtc ctatgggttc actacataaa ttggctaggg 660
caagttctac taactagtac actccattct cttgctaact agcacactcc tgttaactag 720
aatgccccac tctccacctc tgcctactaa gggtagcact gaataacaaa ccctccaaca 780
acagatgggg taggaagagc agtctgtctt gtcagagtgg aaaccaacag ggaggctggg 840
ctcccattag aacatgtgca gttaccgcat gttccttcag tgtcttatcc aaatgctccc 900
tctcttccag ctctttcccc tgcttttaga cttcactcag aacacagcca cgtacacaac 960
aatttccagg gcagcctcca cccctgggat cctagaaagt t 1001

```

<210> 103
 <211> 1001
 <212> DNA
 <213> Homo sapiens

```

<400> 103
tgtttgcta ataacagtgc attgaaatat atgtttggtt tgtgtgggtt ttttgcata 60
gttttggttt ataacaaaag gctaaaaata agtattttaa gaaaatagtg catactatat 120
tttatttgct gatattcata atgatcacca gattattgaa atttatgagt aattttgcta 180
taaataagcc tgttttcttt gtttaaacac acacacacac attttcacac tcacaccttc 240
aaagccacat aatagaatgt ttagcttaaa cctgcagccg ctagttgaaa tgttgcttca 300
tggagtttta tctctctaac aacctgtgtc ctaagtcaca tctctctcca gaaatgtgga 360
cattgaccat attccagtcc ctgagacgct gtttcagcca cacgtggcac ccagaccct 420
tgccacactg catcctgggc attcatcttc ctcctcatgg ggtcatttct tgatccctat 480
taagcattaa aaggggatta matatctctc tacttgagc taatgttttg cttggtttgg 540
ccaagaacat ttttagtttt aaaaacctgg ggctattgga gtgggacctat gggcaaagg 600
caggacagge tagctactaa aatggcctgc cacggacctt gtacgtgaag gttgaaggat 660
tctggtgctc tctggtgcca tcgctgttag tcgttgtgca gcacagaaat attttattca 720
acaaactctg cagactcctg aacttttagg gtgggctgcc ttctgacctg tgctctgcac 780
agatcctgga gctctcgtgg tcatttatgt gcagtgaagc tgctccactc acctacagct 840
tgtccttttc cagagaatcc ctatcatcct cccctcatcc caaggaatgc aacaaaggaa 900
aattaatagt gaatgctttt gccggagacc tgtggatact taatttttat agatactcaa 960
taaataattta tttatattca ctagcagcaa gcaattcact t 1001

```

<210> 104
 <211> 20
 <212> DNA
 <213> Homo sapiens

```

<400> 104
gactttccta aaagcccagc 20

```

<210> 105
 <211> 20
 <212> DNA
 <213> Homo sapiens

```

<400> 105
gcatcttgca tgggtgattg 20

```

<210> 106
 <211> 170
 <212> DNA
 <213> Homo sapiens

```

<400> 106
gactttccta aaagcccagc cagttcagat gatagggtgca gacacatcat attgcatata 60
ttcacattac acacacacac acacacacac acacacacac tctcaccctt ctctttgctg 120
gggaaagggt tggtgcagaa gttaccattc caatacacca tgcaagatgc 170

```

20/55

<210> 107
 <211> 20
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 10
 <223> n = A,T,C or G

<400> 107
 aatcacctan actactgccca 20

<210> 108
 <211> 23
 <212> DNA
 <213> Homo sapiens

<400> 108
 atctgatggg gagttatgta ttc 23

<210> 109
 <211> 241
 <212> DNA
 <213> Homo sapiens

<400> 109
 aatcacctat actactgccca cataagcact atcaataaat tttatcaatc tcttcctggg 60
 tgcctaccag atgtgtgcat gcacgcgtgc acacacacac acacacacac acacaaaattt 120
 cttccactgc attcattaca gcatgctttt ctctcttacc actatattgg gaatacttcc 180
 ccatgtcact aaaactttta gaaaacacca tttataatga atacataact ccccatcaga 240
 t 241

<210> 110
 <211> 20
 <212> DNA
 <213> Homo sapiens

<400> 110
 gccattcgtg tgggtctgata 20

<210> 111
 <211> 20
 <212> DNA
 <213> Homo sapiens

<400> 111
 aaatgtttct gctgccatcc 20

<210> 112
 <211> 268
 <212> DNA
 <213> Homo sapiens

<400> 112
 gccattcgtg tgggtctgata acagcagcag cattaagtgc ccgtccattg gctgcaagca 60
 gggaggaaaa aaggccccag cgcctactgc ctgctttcct gcctgcgtta atatcatctc 120
 ttatcttacc aactaacata taggggtgtg tgtgtgtgtg tgtatttatg tgtgtgtgtg 180
 tgtgtgtgtg tgtgtctggg tatatatata cacacattta tattcggtta tttccgtgga 240
 aaagaaaggg atggcagcag aaacattt 268

<210> 113

21/55

<211> 21
 <212> DNA
 <213> Homo sapiens

<400> 113
 ccatggccta tgacctattc a 21

<210> 114
 <211> 20
 <212> DNA
 <213> Homo sapiens

<400> 114
 tctcctccca gcagtcacat 20

<210> 115
 <211> 147
 <212> DNA
 <213> Homo sapiens

<400> 115
 ccatggccta tgacctattc aggctctgtg tgtgtgtgtg tgtgtgtgtg gtgtgtagt 60
 tgtagggaaa gatacacggg ggatgaatga gagctggggc tggggatatc aagcctattg 120
 actccccatg tgactgctgg gaggaga 147

<210> 116
 <211> 1001
 <212> DNA
 <213> Homo sapiens

<400> 116
 cctgggcctg caggtggctg cgaagggagg aggaggaggg gaggtgggca gtggcgctgg 60
 cctccctgcg tggaccact tcctcccacg ctgtgctcag agaatcttct ggagaccgca 120
 gctgtgcctg ggaggccatc cttgtgccta ggaggacagg gaagaggggtg gatctcagac 180
 acaggcaggc tgggagggtc gcacagggtg ggccatagaa catggacgcc tccagtacgc 240
 aggcacaggc agctcagggc cgggagcgag gcccgctctca gcaggcggtg tcagccgcgg 300
 agtgggtagg tcctctgagg acgatcacac ctgtgggcaa gagcacaccc gggctctggg 360
 ccaagtaagc ctgtgaatcc cactggcggt gtgaaccgag agcccttggg atccgatttt 420
 ttatttgcta tttggatata gctgtaagag atgacagatt attttacatc cctcagttct 480
 ccgaacttgc cttggaccag raatgtcagg ccctcaccgt gcctttttct cttctccaaa 540
 ctctctggtg ctgcctggag cagatggcac cccccacaga cgtcgtcctt attgttgtca 600
 ccagaatatt ccatttccac agccacctgg catcccaaag ccttccttca gtgggcagcc 660
 tcttcacagg caaatgctag cgatgggttca agtcacacgg ccagcacata ctccatttcc 720
 aaggaggtca ttgctaactc taaatctacc cctgttagtt agccaacccc acgtgctcat 780
 tcttagagag gttctgttcc ctgaaaacag tctggagcca aatgctgtgt gagctggggc 840
 ccggtcatgg aaacagaaaa cttccattcc gtcaagctgg atggattcta cagaaggaat 900
 tcggtgttta cagaatcgtt agcagggtg ttcgcgtgaa ggtcagggaa aagcacccca 960
 agatttcagg ataccaagaa gttactgaaa ttgccc aaaag t 1001

<210> 117
 <211> 20
 <212> DNA
 <213> Homo sapiens

<400> 117
 gtgctttgct gacatctgga 20

<210> 118
 <211> 20
 <212> DNA
 <213> Homo sapiens

<400> 118
 ggacagggtg gactcacaaa 20

 <210> 119
 <211> 412
 <212> DNA
 <213> Homo sapiens

 <400> 119
 gtgctttgct gacatctgga aattccacag aggctgggtg agcgatcagc tggagtgaag 60
 tgagacagac ctgagggaaa atgctagctc tgcctcttat agattgagtg accctgcaga 120
 agtcacatga tcattctgag gctcagtttc tttgtgtgta aaacagcgat aatcataccc 180
 atgttgccagg acttggggaa gattaaatac tatgcataca cacacatata tatgtgtgtg 240
 tgtgtgtgtg tatatgtatg tatgtatgta tatactttgt acagagcctg agatacagta 300
 agtgttctct acatggtaga tattattatt gtcttcttgt aaaggagaga aggggattat 360
 ttgctgagaa ctttaaaaaa atctcattcg cttttgtgag tccaccctgt cc 412

 <210> 120
 <211> 20
 <212> DNA
 <213> Homo sapiens

 <400> 120
 ttccagtgcc tgtttcacaa 20

 <210> 121
 <211> 20
 <212> DNA
 <213> Homo sapiens

 <400> 121
 ctgggagggtc ctttcttgggt 20

 <210> 122
 <211> 141
 <212> DNA
 <213> Homo sapiens

 <400> 122
 ttccagtgcc tgtttcacaa agtatctgaa tgaatgaatg aatgaatgag cagctgaatg 60
 tctttctttt ttatggggcc acatatgatt gtctcctttg tagctatgcc aggtagacat 120
 aaccaagaaa ggacctccca g 141

 <210> 123
 <211> 20
 <212> DNA
 <213> Homo sapiens

 <400> 123
 ttgtgggctg tgtagagtgc 20

 <210> 124
 <211> 20
 <212> DNA
 <213> Homo sapiens

 <400> 124
 gctgtgcccc gaaacctaaa 20

 <210> 125
 <211> 250
 <212> DNA

<213> Homo sapiens

<400> 125

```

ttgtgggctg tgtagagtgc tctaaaccca gctcggcctt tgctgtatta gacagaagca 60
cctcattcat atccctgggg cccctgatgg tgcagtggtc tggctgtggg ctgcacacca 120
gctattctgt tttgttttgt tttgttttgt tttttcctac ctttttccaa tcctcacacc 180
ttctgatcaa cagccccagt agggtttaaa ggtcctagag ctacatggga tttaggtttc 240
tgggcacagc                                     250

```

<210> 126

<211> 20

<212> DNA

<213> Homo sapiens

<400> 126

```

ttgcatggag atgaacaacc                                     20

```

<210> 127

<211> 21

<212> DNA

<213> Homo sapiens

<400> 127

```

tccactcaga gaaagcaagg a                                     21

```

<210> 128

<211> 396

<212> DNA

<213> Homo sapiens

<400> 128

```

ttgcatggag atgaacaacc aggtttgtgg ccacatcttg ccgtgtgtgt gtgtgtgtgt 60
gtgtgtgtgt gtgtgtgtgt gtgtattgag acagggtctt gctcttttgc tcaggctgga 120
gtacaggcgg gtgatcatag ctacttgca gcctcaaact cctgggctca agcaatcctc 180
ccacctcagc ctctgagta gctgggtcta cagggtgcaga gcaccgcgcg tacctaattc 240
ttttaacttt attttttgta gagacagggt ctccccatgt tgcccaggct ggtctcaaac 300
tcctgggcac aagtgatccg cctgcctcag cctctcaaag tgctgggatt tcaggcaaga 360
gccaccgggc ctgggttcctt gctttctctg agtgga                                     396

```

<210> 129

<211> 20

<212> DNA

<213> Homo sapiens

<400> 129

```

tgctgaatgt cagggtttga                                     20

```

<210> 130

<211> 20

<212> DNA

<213> Homo sapiens

<400> 130

```

ccaccctagc aggtctctgt                                     20

```

<210> 131

<211> 361

<212> DNA

<213> Homo sapiens

<400> 131

```

tgctgaatgt cagggtttga ctgtttccat aacaggaagc tgctcactgt ctactgtat 60

```

```

taaggaactc tgggtctacac aatagagttc caacaaaacc ctaaactc catttgctgg 120
gggaacctca ttgaatccag ctctcattgt ttcttttata ggctgaatcc tgtatttaca 180
gtgagagggg tgtgtgtggc tgtgtgtgca cgtgtgtgtg tgtgtgtgtg tgtgtgttcg 240
cgcatgcaca tgtgggttta acaagatatg aagcctggct tgtcaccttc caagttctcc 300
acttgaactt gagcatagat cagggtgccca tgattcccca gacagagacc tgctaggggtg 360
g 361

```

```

<210> 132
<211> 19
<212> DNA
<213> Homo sapiens

```

```

<400> 132
ctgaagagca aatggccct 19

```

```

<210> 133
<211> 19
<212> DNA
<213> Homo sapiens

```

```

<400> 133
taagatcaca tggccccct 19

```

```

<210> 134
<211> 335
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 171
<223> n = A,T,C or G

```

```

<400> 134
agctgaagag caaatggccc tgggaagtat tcctttaggg ttacacacac accacacaca 60
cacacacaca cacacacaca cacacacaca cacgaaaatc tctaaagagc aatgagcata 120
gcagcctgga tgggtgctcat ccaaggataa gtctccagac aaatagcaca ncagggggcc 180
atgtgatctt agttcacgaa gacattcaat aaagacccaa caaaacccac gcaacagtct 240
atgtctctgg cccctgcag ggaccttgct ctagcacacg gagcaggggtg gggcatggcc 300
acagtggccc ctactgccct gcacttccca cagct 335

```

```

<210> 135
<211> 1001
<212> DNA
<213> Homo sapiens

```

```

<400> 135
ttccatgcat tccacttctt tctggatctc tggtttcaca ggcaagatgg gacaggcaga 60
gagaacctgg gcatgtgccc tctgtggaga aagtgacttc agaaaccgct gaggctctat 120
tagcctggga ttctaaactc ggggggacat gaaaaactca agagacgagt catcaggctc 180
tatattcata agactcttct ctgtgtgtgt gtgtgtctct tttcaaaca atagcactgc 240
gcagcatcct tagagactac agccaaatgt ccttcattga ttttctctac atttcaagaa 300
tctcgggacc atgcttcta tctaattgtg gaccttgaga gttaaaatca aggggaaaag 360
gtcaccgaat tgggggcaag tttgagttcc cgtcaccagc cacaatctct atatcaaatg 420
gaggacaaca caccacctgg gcctcagcca ggtttgcctg aagcagggcc aggcagcctc 480
aaggcctcca tggtaggctg rggacatggg gacgtgggga aagggggtgc agggaaactg 540
ggaactagga ggggagcgtg agaaagaggg aataaatgcg tacgcggatg aagaggaaca 600
gcaggaggag atgaaggcgg cgcacagggc agaacggcag acacagggct ggggaaggtg 660
cagggccgga ctccagaacc tcagctgagc gttttcttct cctgtgtccc agggatgggtg 720
tgaagtgtct acaggcatcc gagtgaaccc aaagggagag tttggctggc acacggggag 780
acgggccaag gcgcggcggg cgagggcggc acaagcatgg cgctgcgaca ccactgctgg 840
gagcaggggt gaaaggtgtc ttttgctgta aggactttca taaggcagtc ccaatccaaa 900

```


25/55

gactggcttt aatttcacgg ccttagcctc tcagtttctt aagccttctg aggacctcct 960
 gatcatgaca attaagtcac tatttacagc catgtgacag a 1001

<210> 136
 <211> 1001
 <212> DNA
 <213> Homo sapiens

<400> 136
 atgtggatga tctaccacta taggtgtaat ctttaacatc atctttattcc ttcttaaagt 60
 aagttatccg cttgtaaact gcttatttct ttggggcatt gtccccataa actttttata 120
 aagcatcagt gatttcacca ttccacccaa gcttcaccat aaatttggtg tttgttcttg 180
 cttcaatttt agcagaattc atgttggtct gaaagggggc tctttcaa at tgatgtctta 240
 gtgcctcaaa ctagatcatg ttctaacatg ttataacaag ttattacaag tgtatttttg 300
 tgcaaaaaaa ttgaaatcca tgcataatat gacctttcca tgaagttttg gaagacctct 360
 cctatgctta tgcatacact ccccaaactg atcaatccag ttgctattgc ccaagggaaca 420
 gaaggctcat cactccatgg aggggttttc ctgcagcccc tacctaagac cttctcactt 480
 tctctgacag tccatcatc rtgtcgtaaa aggctgccc acttagtcca acacactgga 540
 aatggatgat tgacaacatg ttattttacc catcccctgg gggaaagtct cagattttgt 600
 gaggttggtg cccctgcaat gtgctttaa ctcagctttc tgttgcttg gtctctgggt 660
 cagaagaatt tgtcagtgat aatgtttttg ttaaagtcct atgcccagtt aatgccaaact 720
 cagcgtcttc atcccctagg gctcctgtaa tcatttttct tgccttctct tacagtttct 780
 gtatgttata gaagttcaaa gaagacaaac tctagccaag agcagtgtga agaaaagaag 840
 acgctatatt aatcacagtc cagggatgcc ttctggcttc ctggcagcaa ttccggcctg 900
 agattccttc tctgtgcata cttcctgtca acattgtgtg atgtcaagct gtggccgtca 960
 caaaagtact gtgaacacct gtaaattccca actatcaaaa a 1001

<210> 137
 <211> 1001
 <212> DNA
 <213> Homo sapiens

<400> 137
 ttgttttgat cctaagaaaa atgggtgtca ttttatccag gaatctaaga attataataa 60
 taaattaata aagtgaatgt gataatcaaa ctgtgaggat acgaacaaca taagatttaa 120
 tgatcgttgt caaaaccagt ccgtagggtc gtggaacttt atcgtaaat tgcactttga 180
 tatgtgttta aatatatttt ctaagtattc cacaacccaa aacaggagccc cttagaggta 240
 atctagagga atcccctcacg ttacagacag agccactggg taagggtcta gagtcacaca 300
 gggagttact gcagaatcac tactggaacc ctgtgctctt tctgcaggga ttccgatatt 360
 ttggttggat ttgcattctt acgtcaatgt atgttctcca actctgctct tacatattga 420
 aaggcaggca gctattttta aacaccctgc ctattagcct tcggaacata ataataatgg 480
 caagcaccct ttattgcttc rccgagctgc agacaccct ctagggtgtg aacagagctc 540
 agtaaagata gcagcctcag gtctgtgtgt tgctttgagc cacgagctgg tctgcaggca 600
 gcagccatgg gccgtgcctg tgttggtatg tttaagaaca ttggcgaata cagggaattac 660
 atggactagg tttagaaaac aaacagtaac gtacaaaaaag gaagggttga tatggactgc 720
 aaggacataa agcagggtgca catgcgtgca ctaccagaat agctacacgg tgggaaggaa 780
 ttccagaacc acgtgagaaa gagttgttag gacaatgcag tegtgaataa ccatgtttcc 840
 aaccctatca ctctatttta aaatagataa taattataat ttttattaat atcaaacaaa 900
 ttagcttttg gacctatggc cctaacttag gggctcaggg tgcagtcccc tttcttgtag 960
 acctggcagg ctgcgcagat aactgcccc agcgttggcc a 1001

<210> 138
 <211> 21
 <212> DNA
 <213> Homo sapiens

<400> 138
 ccagacattt cacacactgg a 21

<210> 139
 <211> 20
 <212> DNA

<213> Homo sapiens

<400> 139

tttgccagaa ctagcgggtgt

20

<210> 140

<211> 140

<212> DNA

<213> Homo sapiens

<400> 140

ccagacattt cacacactgg aacatatata cagtacacac acacacacac acacacacac 60
acacacacac atgctagcat gaaacatctg aagtacacag ccataccttg aaaggacccc 120
acaccgctag ttctggcaaa 140

<210> 141

<211> 20

<212> DNA

<213> Homo sapiens

<400> 141

aaatcgcagc tacacacagc

20

<210> 142

<211> 20

<212> DNA

<213> Homo sapiens

<400> 142

tttctgcagg tggtgcaagt

20

<210> 143

<211> 259

<212> DNA

<213> Homo sapiens

<400> 143

aaatcgcagc tacacacagc aaagactaac agtatttact taaaaatatt gtgtgtgttt 60
atatatatat atatatatat atatacttat tatatatctt ttttgtgatt ttttttcttt 120
tccttttttt ttgtgcccac gtagagatac gatgcgattg aaacgatgcc ctagaacaga 180
aatattcttt aaaggaacaa tactttgaaa aataaaaaaa aatttaaatac gttgaacata 240
cttgcaacac ctgcagaaa 259

<210> 144

<211> 20

<212> DNA

<213> Homo sapiens

<400> 144

ggtgaaagac agaagcacca

20

<210> 145

<211> 20

<212> DNA

<213> Homo sapiens

<400> 145

tggtgggaag ccttaaattg

20

<210> 146

<211> 185

<212> DNA

27/55

<213> Homo sapiens

<400> 146

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ggtgaaagac agaagcacca aacagtcttt gaaatgggtc agttattaca attttgactt 60
tttatatata tgtatatata tatatatata tattctagtt ttcctctttg tggtattttt 120
ttttttaaaa aagcacaaat gaaaaatgaa gaattctttc cagatcaatt taaggcttcc 180
cacca                                           185

```

<210> 147

<211> 23

<212> DNA

<213> Homo sapiens

<400> 147

```

ataaagaggg tgtgtatgtg tgc                                           23

```

<210> 148

<211> 27

<212> DNA

<213> Homo sapiens

<400> 148

```

ctcatcttct ctctacagat gtactcg                                           27

```

<210> 149

<211> 210

<212> DNA

<213> Homo sapiens

<400> 149

```

ataaagaggg tgtgtatgtg tgcatatata tagagagaga ggcgagtata tatacatata 60
tatatataga gagagaaaga gatagggtgt gtgtatagat agagagaaag aggggtgtgtg 120
tgtttatata taaagagagg gcgagtatat ctatatgtag agagtgtata tatctataga 180
gggcgagtac atctgtagag agaagatgag                                           210

```

<210> 150

<211> 20

<212> DNA

<213> Homo sapiens

<400> 150

```

gcaggacagg acctgagaac                                           20

```

<210> 151

<211> 20

<212> DNA

<213> Homo sapiens

<400> 151

```

ccacatcgct attggaggat                                           20

```

<210> 152

<211> 399

<212> DNA

<213> Homo sapiens

<400> 152

```

gcaggacagg acctgagaac cagatacgcc tgcaggtgcc tgtccctctg cgccccccgg 60
gtggtgttag ggctccctgt gcacggaggc ctgcaatcat ttggacaaca catggttacc 120
aggtgtctgc tatgtgccaa acgatgggtc caggagggtg agaaagacag tctccacgtt 180
caagagtaca aagtccgtga tccaggaaga caatgaggca gccactgtgt ctcatttctg 240
gatgaatgga tgtcaciaaag ccatggaagt ggttcagttg cttccatatc actagggtac 300

```

28/55

ctcgccctgtc tctctctctc tctctctctc tctgtctctc tctctctctc agagcaggct 360
 acctaggatt ttacttgcaa tcttccaata gcgatgtgg 399

<210> 153
 <211> 20
 <212> DNA
 <213> Homo sapiens

<400> 153
 tctaagattc gccagcttcc 20

<210> 154
 <211> 20
 <212> DNA
 <213> Homo sapiens

<400> 154
 attctagggc ttgcagggtca 20

<210> 155
 <211> 278
 <212> DNA
 <213> Homo sapiens

<400> 155
 tctaagattc gccagcttcc cccgccagag agcgtccagc actcaattct aagatcaccc 60
 cttctccac tgagacagct agccttgac aaggcattcc caagcaagct cccaacaat 120
 ataaggagaa gaaagagaag gagtggctac acacacacac acacatacac acacacacac 180
 acctcttagt tgtcattttg aacctaatg ttttaacacc agctgtcaca tctgcagaat 240
 tctcttctct ggtactagtg acctgcaagc cctagaat 278

<210> 156
 <211> 20
 <212> DNA
 <213> Homo sapiens

<400> 156
 cccaaagtca tgaaatgaga 20

<210> 157
 <211> 22
 <212> DNA
 <213> Homo sapiens

<400> 157
 acaacatacc tgtaggagg tg 22

<210> 158
 <211> 386
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 142, 149
 <223> n = A,T,C or G

<400> 158
 agtccattt cactaataag gagacagatg tggagggttg ggagttggtc ccaggtcacc 60
 caactgggga gggcagaggt tggggagggg caggagtcaa taacccaaag tcatgaaatg 120
 agaaaggaag taaacacttg gntggagant cacacacaca cacacacaca cacacacaca 180
 cacacacctc ctaacaggta tggtgtctgc aacaaggcaa aaataattca ttaatatctc 240

29/55

| | | | | | | |
|------------|-------------|------------|------------|------------|------------|-----|
| atttaaactt | gagggcgagg | gaattcctga | accacctctc | tggagcaa | aatggaaatt | 300 |
| ggaaattgat | tgtcatttac | ctttgaggaa | gacttcggga | tgtgccatgt | ctttggtata | 360 |
| gggctgcgtg | gtgtttgtgac | gcatgt | | | | 386 |

<210> 159

<211> 1001

<212> DNA

<213> Homo sapiens

<400> 159

| | | | | | | |
|------------|-------------|-------------|------------|-------------|------------|------|
| gattggcttt | tactctatgg | gcaacagaga | gccatggcag | gctttccagg | aagggagtga | 60 |
| catgcacctt | agacagggtca | gcctgacagc | agcttaaaac | tagatggaat | gggagacaac | 120 |
| tttgtcccta | agctcagtc | cctaaagata | ccagcacatg | actgtcaggc | ccctgctggg | 180 |
| acagctgccc | ctccctaggc | ctgtccattc | tcttacctcc | ctcctgcctc | tgatggggaa | 240 |
| ggggtgatgg | gttggaaagt | gggtgtgtgca | acatttacca | tggccagggtc | tgctctgtgc | 300 |
| tctgtcccca | cccagcacac | ccatctccat | ccataccggc | cagccttgcc | tgttccctca | 360 |
| cagtgatgca | taagctgggc | ttctcctgcg | gtgtgatact | aatgtactag | ccaaaccttg | 420 |
| agaggccaca | tatggtgggt | gagggatgtg | ggactgccag | actgccagcc | agtgccttga | 480 |
| agactctgca | tttcatatgc | rtacacattt | agtagtagtg | tgaccctggg | ccagttactg | 540 |
| attctttctg | agcttcgggt | tcctcatctg | taaaatgggg | atgatgatac | ttaccttaaa | 600 |
| gggctgccat | gaggtcgaaa | gacaaactat | gacaaacagc | cagtctcgtg | cccagcccag | 660 |
| cgtgggtgca | agctatctgg | tggctgctcg | gatgatgatg | atgacgatga | caacgatgac | 720 |
| gtagcacccc | atttccagct | cacaccatcg | ggatcacccg | cagcatcagc | agcatcatca | 780 |
| agccatcttc | ctgcgttgtg | gcagcttggg | ccccactgg | ccatgcagga | gccaggagat | 840 |
| caaatcatga | atggggctct | ttgcacttca | ggcaaagtgc | aactccagga | aagagagaag | 900 |
| attaaggcca | aatctctgca | cccaaacagg | atccaagaag | tggggtaatc | tgggactcat | 960 |
| cacatctaca | taaagggagg | aggaagcccc | aggttggcct | g | | 1001 |

<210> 160

<211> 1001

<212> DNA

<213> Homo sapiens

<400> 160

| | | | | | | |
|------------|------------|------------|------------|------------|-------------|------|
| tcacacatca | aaatgtggag | atttaattca | ttttaatcga | gaaattaaat | gcatctgcct | 60 |
| tgcttcctct | cctggggctc | ttccatctca | ggaaattccc | acaccagcag | gtctggacaa | 120 |
| gtcctcggca | gtaacttcac | tcagcctgaa | ttcttcttcc | tttccccacg | gctctgactc | 180 |
| caagttctga | tcatacaagt | gaaagggaaa | cttacaacca | aaggagatgt | aaacaagaat | 240 |
| agtctctgtc | agttcagtg | agagagagag | agaagcttta | atggggacta | gtcagtcaga | 300 |
| ggcttattct | gcaagtgttc | attaggaatc | agtggaaatt | ccactgtttc | cctgggtgtca | 360 |
| cttgggctgc | tgccctcttg | cctgtgtcaa | agacaacaaa | ggaaaatggg | ccttgcccct | 420 |
| cgaggtggga | ctggatgcca | accagcccga | caggcagtg | gtgggtcacg | gttctgttcc | 480 |
| cactggagga | tgctcttgct | kgcctaccct | ctcgcctgag | acctggaagg | aagtgcagtc | 540 |
| ccaaggggtg | cagttggagg | ggagctagca | gtcagaccag | gctgggtgtg | gctttgcaga | 600 |
| cagagactca | cctccttcca | ctgccagaag | atgctgccgt | cgggtgagga | gctgtgacct | 660 |
| gggcagagga | aattcaagga | gccaatttct | gctctgtaca | tagaaaagg | ggtcctctcc | 720 |
| tgtttgttgc | gggggcatct | ctgaagccca | gctccactct | ttaccatctt | gctaagaacc | 780 |
| aggagtctgg | aacatctccc | aaagtctacg | tggggctcaa | tatcatgtgc | aatcactttg | 840 |
| caccccggtt | cgaatgtggg | agcaagagtt | gggtcaattt | ggaagggctt | ggttaagaca | 900 |
| gctggtaaac | ctcagctgag | ataatatctc | tattctcctc | tccaaagagg | ttggcagctt | 960 |
| caccgggcaa | acagtgccca | gagaggcctg | cataagccac | a | | 1001 |

<210> 161

<211> 1001

<212> DNA

<213> Homo sapiens

<400> 161

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| cacggataga | aggccaccac | tgagcaactg | taagtgtgca | agtccaatca | gaccacttcc | 60 |
| agaaggtgct | ttcccctaca | actaagacag | cattcacact | taacccttgt | agcaacttcc | 120 |
| tacactgaga | aacacaacag | aattttgctg | tatgattctc | atcttctcag | aaaaatgtgt | 180 |
| tgtctctttg | atctgcctaa | ttaggcta | tgaactagga | atcaaagcag | tttctgggga | 240 |

30/55

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ggaaggtagg aagttctgtt tttagtttgg ctatgatttg tcccaatcat tttatgctac 300
aaaagctttt gttggcgttg gcctccgagt cagtgccttg aaagggtggcc gcaaatgtga 360
tttatgggaa ggtgctgccg ggggcatgca ctttatgggc aggtggtgcc ggaggaagt 420
gttaggagac agtttctca cccatctcct ggagagacct ccatctccct taccaccct 480
gcagtggtag cacgcacatc kgacgaaaga ggctgtcgct aaaacgcttt gaaaagcata 540
cacacgtgca cacacacaat gctcacgggt agtatttgca gtacagaatt ctagtactgt 600
gcacctcagc tacagacatc ccaatttttg aaagtgtcca taatttatag caagagatat 660
ttgggtaagt gcagaaatta tacacgagag tcattgaaac tgagtttata agagtcaaaa 720
attggaaaga acctgaataa caagaattgt aaactgctgg acttcagca agagggagct 780
ggttatatcc atgcagagcg gccttgaaaa agatgccgtg attggataac gtacactgta 840
cacggctgag aacaaaggaa tctgaaatga caatgaatgg agtattagca gcagtgcct 900
agtgaatttt gttctgttca tttttgtgca ctctctaaaa ttatttacaa attatgtcat 960
tttttatgat aaaaagttgt ctgaattttg gaaaaacaag g 1001

```

<210> 162
 <211> 1001
 <212> DNA
 <213> Homo sapiens

```

<400> 162
tttattgtga acttcagaa aatggaaagg attatgcttt aaagacagtt ggcttggctg 60
gatagaaaag atccctctgt cctgtttccc tgtcctcctt cccacatcga tttaaaaaat 120
tagatgcaaa tgcaaaatcc ttaaattata gatattatgat aaattttaat tctggtagaa 180
tcaagggttt ataacattta aagtgtctga cactaagtgt atataatctt ttaagaaacg 240
tcttcttaac agcgcatggg attctgtgac tgttcgtgta ccatgaatat tcttattggg 300
ttctagagtt agttactgac tcttgaagat gggcatctaa tggctcctct gtggaagtgg 360
agagcagctc tccactgttt gataacattt aaagccaagg gtgaaccact caagaaacat 420
ttgggtggta taatattttt ttgttgttgt taagtaccat caataaaaact gaaaaatctc 480
ttaagtacct gactcctgca rtgatacaac tgcagtgata aaacttttag ctttttacat 540
caggggtatt aggtattttt tcacagaaat agccttttga ggtgaaattc acataacata 600
caattaacca ttgtaaaatg aacaattcag tggcgtgtaa gagtatgttt acaatgttga 660
gcaaccatca cctctgtcta gttgcaaaat gttttcatca ctccaaaaga aactccttta 720
ttcatcatag cccaaagttg gaagtatttt cttgattggg ctcttgatta catggatgca 780
tctgagtcac tgaattgaag cctaagatgt gcttaatttc actgtgtgta agtttcacct 840
cagttaacaa gagagaacag aacaaaccaa aaatcttaat tcttttgaaa aaaagacttt 900
ctggctgctt tattaagaa gccaggggaa caaggttaaa aggaaatcag ttagcagtga 960
ccaaggcaag agatgatggg ggcttggctg aagatgggtga c 1001

```

<210> 163
 <211> 1001
 <212> DNA
 <213> Homo sapiens

```

<400> 163
ggatggcatc tgaatcctgg atttcccaga cctcagaacc agaaggaata catttccatt 60
gtttaagcca cccaggcaat gatatttctg ttataaaagc ccaaactaag ataccacac 120
agagaacacc tacacacagt gtggttacag gttgcatcat ttctttttct ttttcaatat 180
ttgcatattc tctaaatttt ctacaatgac ccaccacatg aattctttta aaagaaaaaa 240
atggtaataa tgaaatagaa tagtagtggt gacccttaag aggaaaaaga tggtagaaga 300
cactatgttg cttacagtag actacaaatg tgcgtgaaat ttgtaataa aagatgaata 360
cttataaatg tcaccacctc cctctctgat gtttctgaaa ccagagcata tgtggttaac 420
cttgctctag ctccagtcca tccatccatc atcatgctaa aacatacagc tgtaggcagt 480
ggagaagagc tgtatgtggg saggaagcg ggagacagga attccagaaa tgtctactaa 540
agcagtgcct ttaagttttaa tttattcaag aaaccaatag atatcagagc ataagtgaga 600
aaaagaaaaa aattataaaa aatacaaagg agtccaggat aatagaaatc tttcttcatt 660
cacatattct agctagaata gtgagaagaa attctccctc aaacgtggac agtcccttac 720
atcttcagcc gacacggaag tcttatctga gaatagaatc tctgtacac taacctagga 780
gacggccagg caactgctgc ggtataccca tcacccaggt gttctggaag aaaaagacag 840
cagggagaag ttctcttag aaccagctct tctacaccaa atgaactcag gagacaatga 900
atggaaacac catgccatgg tgtgagcaat gcaatgtgga gcacaagcag cggagagtct 960
gctgaagaag ctactccctt gaaataggaa agaagaaaac c 1001

```

31/55

<210> 164
 <211> 20
 <212> DNA
 <213> Homo sapiens

<400> 164
 gccagccaga ctggattaag 20

<210> 165
 <211> 20
 <212> DNA
 <213> Homo sapiens

<400> 165
 agccgagaag acctgtgaag 20

<210> 166
 <211> 257
 <212> DNA
 <213> Homo sapiens

<400> 166
 gccagccaga ctggattaag acccccgcgc aatgacctcg ttttaacccta gttacctctt 60
 tcaaggtcca aacatagtc tactgggggt cagggcttca catatgaatt tgctgagggg 120
 gcttgagggg tgcacaattc agtccataaa cgctgtatat atttatttga tgtagttttg 180
 ttttaaataa aaagtgtgtg tgtgtgtgtg tgtgtgtgtg tgtgtatcta aagtaggctt 240
 cacaggtctt ctcggt 257

<210> 167
 <211> 1001
 <212> DNA
 <213> Homo sapiens

<400> 167
 gccagaat gacatgttga tcctcaacta gcttgtggac agagtgtttc ttttctggtc 60
 attcctttca gccactgata taaacaaata taattatcca atcaaaattc tgaatgatga 120
 gaagtttctt atgcagtcct aagcactactg gttttacttt ccatagttca gcaaaaatat 180
 tactggatta ctggggccttt aaaatggccc aagctgtagc ccacagatct gcactagctc 240
 acagaatgcc acgggttggt ttgtttctga ctatgatcac agagtaatac taacaaaatc 300
 ttgctatttg aaggaattat taatttttga attacaatta gaatacaatt agattattcc 360
 acattaccga gtgaattatt attataggtg ccaacattca cagtttaatc caatgaagaa 420
 actgagccta tataaaaaata accaccacca aagcagaaga aaagctacgt gaagaactga 480
 actcaatctt aatggttcct kcagataact actcccaatt gacccaaata aaccaattta 540
 ctgggtcaag agagagcatg aaggaactaa ggactctgtt agaagtgagg aaatatggaa 600
 ttactcgtgc atgtagcatg tataacatac agaacaagca tttctgaaaa tgtgagcagt 660
 atcaataggt tggataactt tagcccaaaa aactctacta ctactgcttt ttggaaataa 720
 ttaaaaaatat ctcaatacag tttataaact ttgataaagt caatataaaa gtaataacat 780
 catataaacc ggtcttttgc tcatttgaac tcctgacatg gggattataa gccataacag 840
 atttcttttt tcaaatatct gaaatacaag gaataatttt ctttaaataa gttgcaatat 900
 accaaccagt attgggctgg tttctgtgat ttctcttaa ttgggtggtg cagcagtaat 960
 cctctaattc ttaggatgga caactgactt ttgaatatct c 1001

<210> 168
 <211> 1001
 <212> DNA
 <213> Homo sapiens

<400> 168
 gatcctcaac tagcttgtgg acagagtgtt tcttttctgg tcatttccttt cagccactga 60
 tataaacaaa tataattatc caatcaaaat tctgaatgat gagaagtttc ctatgcagtc 120
 ctaagcatatc tgggttttact ttccatagtt cagcaaaaat attactggat tactggggct 180
 ttaaaatggc ccaagctgta gccacagat ctgcactagc tcacagaatg ccacggtttg 240

```

gtttgtttct gactatgac acagagtaat actaacaaaa tcttgctatt tgaaggaatt 300
attaattttt gaattacaat tagaatacaa ttagattatt ccacattacc cagtgaatta 360
ttattatagg tgccaacatt cacagttaa tccaatgaag aaactgagcc tatataaaaa 420
taaccaccac caaagcagaa gaaaagctac gtgaagaact gaactcaatc ttaatggttc 480
cttcagataa ctactcccaa ytgacccaaa taaaccaatt tactgggtca agagagagca 540
tgaaggaact aaggactctg ttagaagtga ggaaatatgg aattactcgt gcatgtagca 600
tgtataacat acagaacaag catttctgaa aatgtgagca gtatcaatag gttggataac 660
tttagcccca aaaactctac tactactgct ttttggaat aattaaaaat atctcaatac 720
agtttataaa ctttgataaa gtcaatataa aagtaataac atcatataaa ccggtctttt 780
gctcatttga actcctgaca tggggattat aagccataac agatttcttt tttcaaatat 840
ctgaaataca aggaataatt ttctttaaat gagttgcaat ataccaacca gtattgggct 900
ggtttctgtg atttcctctt aattggtggt agcagcagta atcctctaata tcttaggatg 960
gacaactgac ttttgaatat ctcagtaatg agatctccat t 1001

```

```

<210> 169
<211> 23
<212> DNA
<213> Homo sapiens

```

```

<400> 169
ggaagctgat gaggtgtata tgg 23

```

```

<210> 170
<211> 20
<212> DNA
<213> Homo sapiens

```

```

<400> 170
gagtctgagg tgggagcatc 20

```

```

<210> 171
<211> 242
<212> DNA
<213> Homo sapiens

```

```

<400> 171
ggaagctgat gaggtgtata tggatactct gtgctatctt taagcttttc tgtaaacata 60
aaaaaccta aattatttta aaataaaaagg tatgtatgta tgtatgtatg tatgtatgta 120
tgtatgtatg atttttagag atgcagctct tctctgttgc ccaggctggg gtgcagtggt 180
gtgatcatag ctactgcag cctcgaattc ctggacccaa gggatgctcc cacctcagac 240
tc 242

```

```

<210> 172
<211> 1001
<212> DNA
<213> Homo sapiens

```

```

<400> 172
catactgcat acaagccaag aacataaaat gaacctctca gtcttaccct tcctgcaact 60
gaggacccgc ttgccggcac tcagtaggac acgtgattaa aagtgtggct tgtgaggcca 120
aactgcatgg ttctgaaacc tggttctacc atttacaagc tgtatgacat taggcaaatt 180
acttaccttc tttaagccac agtttctctc ttgagacagg tggacattaa cagtactagc 240
tcatgaattt agttggcgt ttcaatgagt taatacacat cagctgttac taacatccac 300
catatatccc cagaggggta cccaattctt tggggctctca atgaccttg tccttcaccc 360
tctagaaagc atgtcatcag agaataacaa acattatctt caacttactt gatccactgc 420
tgcatataat ttaagtaagt cattctcaaa acttacttta ctaataacat agtctataca 480
acccccagat aatgaccaca rtgcagctctg ttacgacagc tatggcaaat actgacctag 540
atcgcgagag aaaagaacag ctgctgtcct cacagctgcc ccgcctcact ttctgctaac 600
agacgtctgt tctgtatggc catcagcttg catagtgtt cagggcaggc tggacccatc 660
cccatctcct acatcagcag catcagcttc aatcaggaac ttgtgaaaaa cacaaattgt 720
cagtcoccaa tccaaactag agcagaaact cttcaggtgg ggcctggcaa tctgtgtttt 780
gataagtcct ccaagtcatt ctgatgcaga ccagtctgaa aactactgac caagaaccac 840

```


| | | | | | | |
|-------------|------------|------------|------------|-------------|------------|------|
| tgaactaata | atggcaactg | cgtatctcta | agtttagaaa | tgggggtatac | aacaattcta | 900 |
| gccaaaggagg | ggcaacttct | agaaattttg | cttactctta | aaaatgaaca | caaagaaggt | 960 |
| accttatctc | ttctggcctt | tagaatgttg | ttgattagag | a | | 1001 |

<210> 173
 <211> 1001
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|------------|-------------|-------------|------------|-------------|-------------|------|
| <400> 173 | | | | | | |
| cttcagcttc | aattcaggta | gagcagtgag | gtttgaaagt | gcctcaagca | gagcccacag | 60 |
| ttctctgata | ctttacaata | tcacactctg | taattgtgtg | gcatagcagc | catgctagga | 120 |
| acgaggtcaa | ttacttaggt | actcgctaga | ctttttcctt | ttctccaccc | ctgggggtcca | 180 |
| ggctcttttc | ccagcactta | ctcagggctg | tcattagccc | tttctcctca | gtttcatcgc | 240 |
| ccctgcattt | acgttattct | aagtcttctc | ccctatgggt | tcctgtgggg | aaaataaaaag | 300 |
| atccgaaagg | gaaaaaagca | gaaaagaatg | aaataaagtg | aaaattcaag | aggttcttgt | 360 |
| tttaagtccc | tatcttaaaa | gatatatggc | tttgtcactt | tcaaaagcat | tacattataa | 420 |
| ggtatgtggc | caaaacacaa | tcaataaaca | aacacacgca | gacagataca | actaaataca | 480 |
| cacaaacata | catgccacaa | yagagagggg | ctttgattct | taggatcccc | cttttctttt | 540 |
| ccatccatta | attcctaact | acactgttct | tctctaacca | tgtaactatt | tctcaatatc | 600 |
| catttgtcac | atgtaaaata | ttctcaagac | cactcctagc | cttggtatacc | tgagacctgt | 660 |
| ctcccatacc | aacaccatca | cttaatttaag | aaacaatggc | actaaagctt | tgcttacaaa | 720 |
| tctgtgaaac | aaagggtcatc | ccacctgcct | accttcccac | ttcaccttac | taataggagg | 780 |
| tttaaaggag | atatgtgctt | aagtacacca | aagaaccaga | ggtaccaaca | gggttaagat | 840 |
| acgccttgaa | tccaagaaaa | tcccctgaag | cagcatgtca | atactgagta | acacaacccat | 900 |
| tccttaggct | atcacctttt | tttttttttt | tttttttttt | tttgagacag | agtgtcgctt | 960 |
| tgtcacccag | gctggagtgc | aatggcacga | tcttggctca | c | | 1001 |

<210> 174
 <211> 21
 <212> DNA
 <213> Homo sapiens

| | | |
|------------|------------|------|
| <400> 174 | | |
| agccacacag | gtcacagatt | t 21 |

<210> 175
 <211> 23
 <212> DNA
 <213> Homo sapiens

| | | |
|------------|------------|--------|
| <400> 175 | | |
| ttctgacatt | cttaatgggc | ttt 23 |

<210> 176
 <211> 248
 <212> DNA
 <213> Homo sapiens

| | | | | | |
|------------|------------|-------------|------------|------------|----------------|
| <400> 176 | | | | | |
| agccacacag | gtcacagatt | ttggcttttt | aagaagaaac | aagagccctc | atgcagaccc 60 |
| ctggtacagt | ctcaactggt | ggagatacta | tgtaaaggag | cttttaaatt | attaaatagc 120 |
| ctctaaataa | atacatattt | tatatatata | tatacacaca | tacacacaca | cacacacaca 180 |
| cacacacaca | cacttatatt | acattttatta | gtaacctaat | ttttaaaagc | ccattaagaa 240 |
| tgtcagaa | | | | | 248 |

<210> 177
 <211> 1001
 <212> DNA
 <213> Homo sapiens

<400> 177

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cctgtgatgg gatggcacc tgtccaggac tgggtgccgc cgtgtgccct gagctcctag 60
gataggctct gaccacctgt gaccagggtg aataagtgga taagaattat ctcacgttgc 120
attaatcttt cttaaataata ggtatggctc acatttattt caacgtttta tgctagaagt 180
gttttgggtct ttacttaaaa gtttgggtgt gtttttgtga acagaaatat gccacagaaa 240
cttaatcttg tttgtatcaa ttagcctatg ggaaaactgg tttccatata cgtagtttca 300
cttcaaattg cagtttctaa gaactcactg atgacagtga agatttactg tatgggggtt 360
tagagtaaat ttctaaatgt acgtacaatt tttcacattt tttaaatatc tatttgggtga 420
tctatatatt caacagatga gaatcagtag tcacttttag ggatagtttc ctgggagatg 480
gcacccaata aagtctccaa ygatgggaca tgattttgaa agagtacatt agctgtgctc 540
acaaaccaag atccaatctt tcctcaacca gatgaacttt tccttaagac ctgaaacact 600
gatgagtctt gggcacatgg ctacaatact tttcattgag tccctgaagg ccatttttac 660
ctcaatgaaa tatcatctaa agaaaaatta tttaaaactc cagttgtata atttcaagat 720
agtttagtgt atttagtatg actcactctt cattaaactt cacaactatt tttaaaagct 780
aatttaaata gttacctgtt tgagctgac gatggaaaca gggcttgggc tatttctgta 840
ccaccctcag actaagaatg ctttttatat ttttcgaggg gactgtgcat cagaggcctt 900
ctgtggctac acatcttaaa atacttcttt acagaaaaag cttgccaagt cccgaatcaa 960
aacagaaatc aaagttttta agggaaatcg tctctgtgac t 1001

```

<210> 178
 <211> 1001
 <212> DNA
 <213> Homo sapiens

```

<400> 178
ggtaagaatt atctcacgtt gcattaatct ttcttaaata taggtatggc tcacatttat 60
ttcaacgttt aatgctagaa gtgttttgggt ctttacttaa aagtttgggt gtgtttttgt 120
gaacagaaat atgccacaga aacttaatct tgtttgtatc aattagccta tgggaaaact 180
ggtttccata tacgtagtgt cacttcaaat tgcagtttct agaactcac tgatgacagt 240
gaagatttac tgtatgggggt ttttagagtaa atttctaaat gtacgtacaa tttttcacat 300
tttttaaata tctatttgggt gatctatata ttcaacagat gagaatcagt agtcactttt 360
agggatagtt tcctgggaga tggcacccaa taaagtctcc aatgatggga catgattttg 420
aaagagtaca ttagctgtgc tcacaaacca agatccaatc tttcctcaac cagatgaact 480
tttccttaag acctgaaaca ytgatgagtc ttgggcacat ggctacaata cttttcattg 540
agtccctgaa ggccattttt acctcaatga aatatcatct aaagaaaaat tatttaaaac 600
tccagttgta taatttcaag atagtttagt gtatttagta tgactcactc ttcattaaac 660
ttcacaacta tttttaaaag ctaatttaaa tagttacctg tttgagctga tcatggaaa 720
cagggttggt gctatttctg taccaccctc agactaagaa tgctttttat atttttcgag 780
gggactgtgc atcagaggcc ttctgtggct acacatctta aaatacttct ttacagaaaa 840
agcttgccaa gtcccgaatc aaaacagaaa tcaaagtttt aaagggaaat cgtctcttgt 900
actctgcaat caatagcatt tttttttata catacacaca catagacaca ttcatgcccc 960
cccatcccca tcccacttta atctggaagg tacctgatct a 1001

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<210> 179
 <211> 20
 <212> DNA
 <213> Homo sapiens

```

<400> 179
tgcagacagc acgttgtaaa 20

```

<210> 180
 <211> 19
 <212> DNA
 <213> Homo sapiens

```

<400> 180
aggctgggtgc tcctgaaat 19

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<210> 181
 <211> 116
 <212> DNA
 <213> Homo sapiens

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<220>
<221> misc_feature
<222> 48
<223> n = A,T,C or G

<400> 181
aatctttcca tcccacagaa tctttccaac attacagaat ctatccantt gcataagcct 60
gactaggcaa ttgaccttat gaataagtct atagtatcaa atgatgttga agacag      116

<210> 182
<211> 19
<212> DNA
<213> Homo sapiens

<400> 182
cagcccagca acattcact                                     19

<210> 183
<211> 20
<212> DNA
<213> Homo sapiens

<400> 183
gtggtagagg gttgccttca                                     20

<210> 184
<211> 174
<212> DNA
<213> Homo sapiens

<400> 184
cagcccagca acattcactg cagattttgt agagagctgc atatccaaat tccaccagtc 60
tcaaatacaga aaacaacgct aaaacagagc tgtagaccgc tcaactggat ggtgccatta 120
taaaatgcaa aatgcctttt cctttttact ctctgaagg caaccctcta ccac          174

<210> 185
<211> 20
<212> DNA
<213> Homo sapiens

<400> 185
gcaaacaaca tggctagcag                                     20

<210> 186
<211> 20
<212> DNA
<213> Homo sapiens

<400> 186
tgtttcttgg caaagtggaa                                     20

<210> 187
<211> 403
<212> DNA
<213> Homo sapiens

<400> 187
gcaaacaaca tggctagcag gtattaaaac agcagaccat gttcctgcag tatttcaagc 60
aaaaccatct aactgggaaa aaaaattttt ttaataaaaat ccttcctcag taaataactgc 120
ttttgaagta tagctatgtt agaagaaata acttactaaa attagcatgt cttttaataa 180
gttaacttta ggaaatattt agagatatat tctaactctg aaaaaagatg taaaaaaaaa 240
actagacagt aaagtcacag gcactttata tcaatgcaga ggaaagttaa gatcagaaaa 300

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36/55

aaaaaaaaata ctaccctaca tacaactaca aaagctaaat tgacatttta aatgtacttt 360
 tcagtttgcc ctaaaatctg gacttccact ttgccaagaa aca 403

<210> 188
 <211> 1001
 <212> DNA
 <213> Homo sapiens

<400> 188
 tttgaagcca gatagccaaa atagggcaag ctacatgggt acagttgttc ctgatcagat 60
 gaaatgaaca ttttacagtt aaaaaaaaaga atgaggggga aaaaaatccc tgaattttct 120
 cattgacttc cctagatttt tgaactcatt tttgtgattc tgtctacttc tccattcact 180
 aaagtcttct aataatgcca ataactgtct ttagaatggt aagagtacaa attaggtaat 240
 atttatatgg ctggagggtc tatggcagaa aggtgcgttt gacaacttca atagttactt 300
 tgatactatt gaatactatg gcacctatga gttttgggag tggcagggtg gatgggggata 360
 ctacatttta ggacacagct tttcatgagt atatatgcca gtgtgaaatc tctgaagact 420
 ttagaaaaat tactaatagt gaattttttac tcccatacat tgggaagagg ggagtgattc 480
 caaaatcaac ttttagaaac magccatata actgtatcca tgtatttcat gctatgattt 540
 aagcctcata ctccctatgg tatgtaaaac tcatactcat atgtaagcct catactccct 600
 atggtagtaa aacttaaggc cagcaggtaa agattatttc tgcatataga tgggattctg 660
 tttctttgct gaatttgaat gaataacacc ttacatggca taaatataga gtaggattgc 720
 ccaggatga accccaattt cactaaaata gtaacatgaa taatgtgagc aagattacct 780
 cttcaaactc cagttttcac cttgatataa tagaaataac aacagtgact tttctgaaaa 840
 gttgctgggc agagtaaagg tggtaatcct ttcaaggatc tcaatatgat acctgatagg 900
 cagctaagca ctagagagta actgctatta ttattactgt tgttattatt atgtttgcat 960
 aatactgaca tgtttctact taaattctat cgctgagtgt a 1001

<210> 189
 <211> 24
 <212> DNA
 <213> Homo sapiens

<400> 189
 aaagttgcat agcttcctca gttt 24

<210> 190
 <211> 20
 <212> DNA
 <213> Homo sapiens

<400> 190
 ttaaaccact ggctttcctg 20

<210> 191
 <211> 176
 <212> DNA
 <213> Homo sapiens

<400> 191
 aaagttgcat agcttcctca gttttaatgt ttgaaatgtc tttttcttaa tggcaggaat 60
 actgggctta gaagttgtat tagttagggc tcttccgaga aacagaatga gagagagaga 120
 gagagagaga gagagagaga gagagaccta tcactgcagg aaagccagtg gtttaa 176

<210> 192
 <211> 1001
 <212> DNA
 <213> Homo sapiens

<400> 192
 tatttgagaa aggggtgttg tggatcagtc ggacttcctg tcttgattgc agtagtgggt 60
 ggggtgaatt tccttctagc agcgtggaaa aggggcatgg gaatcaatgc aggtggaaca 120
 gtggttctctg atgtgacgta ggcaaccatt ggacattggg cttttttaca tcctcagatt 180

```

caagagcctc ttgaaaatgt ctcatthttga tcatatcgag ttctgtctgt gaaagcgatg 240
gcaagtctgg gtttaactagt gaactagtct agtcgagtta gcttaagact ctttcttata 300
atgcatggac atgtaaaaat caggaaatttc ttggtgaaaa aatttgtttc cttagaacca 360
gaacaaccca taatgcaaac gcataaaaaa gatttgcaaa ttgatgtcct cagtctctct 420
agatacattt caggtgttca agatccacgt atagctagtg gtgaccatat tgacatcatg 480
gaaataccta ctgggcccgtg mtgggtttaca ccatactctc tgaaacaccg cttaggcatt 540
taccatcatga ttctgtgtat gactgctttt agtagctgct gctgctattt gctaccacga 600
aggccgcctc ctccctccgt ggtcggtagg taagttagg ttcttgatct caccacacaa 660
aagaatttga gagtgactcc aaaggaagag tagccaaaga agcttattgt aaagcgaaag 720
taccctctga gaggtctgag gggctgctta aaggagaga cagcaactag tgccttcaga 780
ggaattcctt ttgcgggaat tgttcgtata tattcataaa atactggtga ggtcaagtac 840
gtaaagacag acctgcggtt gacacatgcg ctcagcatct gcatgctgta acatgcaatg 900
catgtatcat tagcatataa aatctccgcc taggggtgtg tttttttact attaaaatga 960
agaaaagggt actatgagct aaaccttgag cctagctgca c 1001

```

<210> 193

<211> 20

<212> DNA

<213> Homo sapiens

<400> 193

ctggaatgga ggaatgcttg

20

<210> 194

<211> 19

<212> DNA

<213> Homo sapiens

<400> 194

tccacaaagc cattggaaa

19

<210> 195

<211> 304

<212> DNA

<213> Homo sapiens

<400> 195

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ctggaatgga ggaatgcttg aatatagcca gttccattga ggtaagtatt ttggaagcaa 60
aatctaataa aacataattt tatattatga ctcagtgtag ctcttccatt tcttcattag 120
ataatttagt catgtttctc gactcaaata ctgaagactg ataggaaaag cctcaccctg 180
gttcacgtgc atatgagtgt aatggaaactt tcttgacttc cagcagtgtc tgggtgttact 240
caggttatat gagtagctca attccatgag ttgcttgga ttccatttcc aatggccttg 300
tgga 304

```

<210> 196

<211> 1001

<212> DNA

<213> Homo sapiens

<400> 196

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tgccagacac tggttetaagc cttttacaca cattatctct cttaatgctt caacaacact 60
atgaagtagg tatgttattt ccccatthtt acagttgagg aaactgaggc atagagtggg 120
tacctgactt tcctactgca ctgctaggat ttggaatttc agtcggcat tctcattccc 180
atctgactgt agacctctag gctgtatcat ccttttttac agttactaac ccaccctgat 240
ttcaaataat ttacataagt ttatttaggt aataactgga ttttgagcca agaccttact 300
gactagccaa aaactgatcc ccagaaatac ttagaccttt ttattaagct ttattaattg 360
atgtcagagg gttatttcat ttttcttcta gaattgggat gcacattttt ttgttctttt 420
tttctcccg tcaacacttt tgagtgtgtg ttatgtggca gatgcctttg ttagatacta 480
gaagcaaaga aatcagcttc mgtaagacta aaattgtatc tggtgataaa cacaatgtta 540
gagaaacatt ctgggtgccc atcattatta gaccatgttt gcttaataact aatttgtcag 600
ttagaatatg tttccagttg tggatgtttc ttttttgtct ttcttttctt tttgccccca 660
ggcattgtct actctggact ccatcactct gatgtaccct ttctttttacc gtccatgtgt 720

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38/55

| | | | | | | |
|-------------|------------|-------------|------------|------------|------------|------|
| tgaagtgata | gaagatggct | ggcatttcctt | ccttcctgag | caagaatttg | aactctattc | 780 |
| ttcagctgtg | agttaacttt | tgagaactgt | ggattatgag | aagtaacca | ataccttatt | 840 |
| tgacttgtga | aaatgatcac | ttcttttgaa | gagtaataag | gtgaagttga | cttatccatt | 900 |
| cctaattctta | atataattta | aaggattgaa | gccatgcaga | gtatgatctc | tgatcacaaa | 960 |
| ggaattagat | taataatcag | taataactaag | atatctagga | a | | 1001 |

<210> 197
 <211> 1001
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|-------------|-------------|-------------|------|
| <400> 197 | | | | | | |
| aattagaaag | tggttatcaa | acaatgtaaa | taatgaagac | cctggggggtc | tttccagaca | 60 |
| ttcatatttg | taagctatcc | tggttgtttc | tgcaacaaca | gccctttctt | aaagaaacta | 120 |
| gaaaaataaa | taggacataa | atgtcaaaaa | gtgtataatt | tttatgttta | tattataggc | 180 |
| ttctcagaaa | caaaaagggt | agaaagtttt | tttatgctta | gctattttta | attaaaaatag | 240 |
| aatcccaaatt | ataacaaagg | acttttgtgt | acagtaattgt | tctctggggt | aagggtttaac | 300 |
| accaaacctg | atgtgaccag | attctgtttt | tatcctcctg | ccagcttctt | ggaagcctgt | 360 |
| aaaataactct | ttgttttgtt | gttgttgaga | gttctaattgc | cgattgagct | ttttgacaaa | 420 |
| tctattgatt | tttcaacact | ttgtttctct | acaaaaagtc | ttgtattcta | tcttctttca | 480 |
| tactgagaag | aaattgtcct | mgtaagagga | gcactcaata | atggttgtta | taaattaatt | 540 |
| actttaatgg | cagtgttctt | tcttgatcag | atgtaagttg | aagctacagc | agaagacgat | 600 |
| gtctttgtgg | tcttgggtta | atcagcccag | tgagctgagt | aaattcacca | atcccctctt | 660 |
| tgaagccaac | aacctgtca | tctggccttc | agttgctccg | cagagtcttc | cactgtggga | 720 |
| aggtaaacca | cgcatacctt | gcaaaacttc | taacggtcag | gtgtgcatgc | ggctgcctgt | 780 |
| gagtgtgtgc | tggttggtgt | gtatgaagat | ggtagctgg | acgtggccct | cagacctgtg | 840 |
| tgaattgtca | ttctcagtgt | gggcatgttt | ttctctttca | aatcagttat | ctagccacac | 900 |
| tttttttttt | tttcagttac | cattgagaaa | ttaacagtgt | ttctttacat | tgctgtttat | 960 |
| gttggatatt | tttctagata | agaaagtacc | ttactctttg | c | | 1001 |

<210> 198
 <211> 20
 <212> DNA
 <213> Homo sapiens

| | | |
|------------|------------|----|
| <400> 198 | | |
| ggaccagaaa | tgggcaatag | 20 |

<210> 199
 <211> 21
 <212> DNA
 <213> Homo sapiens

| | | |
|------------|------------|----|
| <400> 199 | | |
| ctcttcagtt | ctgagggttg | 21 |

<210> 200
 <211> 153
 <212> DNA
 <213> Homo sapiens

| | | | | | |
|-------------|------------|------------|------------|------------|------------|
| <400> 200 | | | | | |
| ggaccagaaa | tgggcaatag | ttacaatagt | tgatcctctg | ttctggaagc | tttgaaattt |
| atcagagaat | gaagtcattc | agtacatctg | ataaagtttt | gttgtgtgtg | ttgttggtgt |
| tgtttttaatt | gggcaaccct | cagaactgaa | gag | | |
| | | | | | 153 |

<210> 201
 <211> 20
 <212> DNA
 <213> Homo sapiens

<400> 201

aacggagaaa gaggggtgtcc

20

<210> 202

<211> 20

<212> DNA

<213> Homo sapiens

<400> 202

cccttccagt tgcaggagta

20

<210> 203

<211> 382

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 155

<223> n = A,T,C or G

<400> 203

| | | | | | | |
|-------------|-------------|------------|------------|------------|------------|-----|
| aacggagaaa | gaggggtgtcc | atagcctaca | gaactttctc | tcagaacttc | taggtcagtg | 60 |
| ctgttctttg | ggaatctaata | atgagccaca | tatataattt | aaaaatttct | attaatcaca | 120 |
| caagagtaaa | aaaaacaggt | gaaatgaatt | gtaantgttt | tatttaactt | accttactaa | 180 |
| aaatattttc | catttaacat | acaatatgaa | attcattaac | ggatagtcac | atttttaaac | 240 |
| gccatatctt | caaaatctgg | tgtttgacag | cacatttcag | ttcaaactag | ctacgttgca | 300 |
| aggattttaat | agccctatgt | ggctagtgc | tattgtatgg | aacattatcg | ttctagaccc | 360 |
| tctactcctg | caactggaag | gg | | | | 382 |

<210> 204

<211> 1001

<212> DNA

<213> Homo sapiens

<400> 204

| | | | | | | |
|-------------|------------|-------------|------------|------------|-------------|------|
| tctagctttc | agatcatccc | cacgtaaagt | tcagacttta | ccagcccaga | gagtttaaaa | 60 |
| aaaaaaaaag | agagagagag | aaagcgaatg | tggattgagc | ctttacactg | accgcgcagt | 120 |
| ttgcacagtg | cttttcatag | attgactgct | tttattaaac | gctctcaaca | gtctattagg | 180 |
| atggcatggg | gattgcccc | tttctgagga | cgcggaaact | tgagatttgg | cgaggcaaga | 240 |
| agccaggcgc | acacagctag | gcgggcccgc | ggccgcgacc | ccctggctgg | tccgtgctct | 300 |
| ccccctgggg | aggggtgcag | gctgccagga | aaggtgcccc | ctgcgtggcc | ctgggggtgt | 360 |
| ttcttccctc | ttgtctcttc | ttaggcacatc | gatctcatct | cttaagtggg | aagagtcggg | 420 |
| gtgggtggaag | tagagggtat | gggacacggg | ggacctacct | cacttggtag | ttagtaactg | 480 |
| cctcaccttg | ggcgggtcag | yggattctga | acaatgggga | aaaggtccca | gcttcagggt | 540 |
| tgctgtgagg | gtttaagaag | agttcaggaa | agcagatgct | tcaccaacgc | tccgtagtta | 600 |
| ccaggcgctt | gatttttctt | tggatcatta | ctattaagag | gatgcatttg | tgatgatgat | 660 |
| gatgtaatga | gtcagagggt | ttaaagccca | gactgccttg | aaaatgcgtc | tggtaaacct | 720 |
| tcttgctcct | taaagcagaa | taagattgga | gtgggggaac | gcagtgaaaa | tgaagggtggg | 780 |
| catggacata | taagtattaa | gttagaagtg | gggagggggc | agggggcatt | ggcgccagga | 840 |
| agttgtaaac | tgggcaatta | tcacccagtc | cagagcaggg | aaggcccgtt | gtgaggggct | 900 |
| aggcatgaag | gtaccagcag | cgtacatgct | cctgcagacc | cctgaggctg | gaaggaagga | 960 |
| gcgggcagtg | ggagagtaat | aggtttaagc | acgtttgcaa | g | | 1001 |

<210> 205

<211> 1001

<212> DNA

<213> Homo sapiens

<400> 205

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| tttacactga | ccgcgcagtt | tgcacagtg | ttttcataga | ttgactgctt | ttattaaacg | 60 |
| ctctcaacag | tctattagga | tggcatgggt | attgccccct | ttctgaggac | gcggaaactt | 120 |
| gagatttggc | gaggcaagaa | gccaggcgca | cacagctagg | cgggcccgcg | gccgcgaccc | 180 |

```

cctggctggt cctgctctc cccctgggga ggggtgcagg ctgccaggaa aggtgcccc 240
tgcgtggccc tgggggtggt tcttcctctt tgtctcttct taggcattctg atctcatctc 300
ttaagtggga agagtccggg tgggtggaagt agagggtatg ggacacgggtg gacctacctc 360
acttggtagt tagtaactgc ctcaccttgg gcgggtcagt ggattctgaa caatggggaa 420
aaggtcccag cttcagggtt gctgtgaggg ttttaagaaga gttcaggaaa gcagatgctt 480
caccaacgct ccgtagttag saggcgcctg attttctctt ggatcattac tattaagagg 540
atgcattggt gatgatgatg atgtaatgag tcagagggtt taaagcccag actgccttga 600
aaatgctctt ggtaaacctt cttgctcctt aaagcagaat aagattggag tgggggaacg 660
cagtgaataat gaagggtgggc atggacatat aagtattaag ttagaagtgg ggagggggca 720
gggggcattg gcgccaggaa gttgtaaact gggcaattat caccagtcac agagcaggga 780
aggcccgttg tgaggggcta ggcatgaagg taccagcagc gtacatgctc ctgcagacct 840
ctgaggctgg aaggaaggag cgggcagtgg gagagtaata ggtttaagca cgtttgcaag 900
tggaggcgga gagaggacaa gggctggggg ggttggagtt tgctgggtct ctgggggcaa 960
tattgatcta tgtaggcga gtttctctac tcttcagata c 1001

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<210> 206

<211> 1001

<212> DNA

<213> Homo sapiens

<400> 206

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tggtttctcc ctgcctcttt tccctttcat atcccagtc acttctaatt gaggatggga 60
ttctgcctca tgtcaccaga ggtggatag aatctgttca tactggtttt gaattgattt 120
gtcaccataa gcagataagc ttcaaagttc atgaaaataa tgaaggccaa gattgagttc 180
ctgccccaaag aaattccaga cctgtgtctg gctttcatga gatttttctc ttctaattgcc 240
cttgcttctc ctctttctcg gaaccactcc atgctggtaa gtgttgtctc tgaaacgaat 300
gttacctgta ttggtctctg tcctagcatg ggggagatca ttgcatttct aagcgtgca 360
ccacgttcct gggaagattg gaagtaagca gcagttatat cagtgcaccc taggacttac 420
gtagttagct aagactgaaa actagtctca ctcagttatt acattctggg aataattgaa 480
ctgtttagat ttgcattaaa scttcacttt ttttctctc tcacttaggg gctcttgccc 540
agctgggagt ggggcttgct aatcctttga ggtaagagcc ctaaaaactt gaaattttaa 600
atctgagttg ttaagtatat ggagctcatt gggatgcctt ttaaaactct tttctctctc 660
ctcttgctcc ttaccattgt taagatatat ctaaaatact gctatatata gctatagata 720
tagatatata gagatataga tatagataga gatttttttt ttttgagttg gagcctcagt 780
ctgtcaccca ggctgtagtg cagtgggtga atcccggctc actataacct ccacctctg 840
ggttcaagtg attctctgc ctcagctccc cgagttagct ggactacagg cacataccac 900
cacgctggc taattttttt tatttttggg agagatgggc tctcgctatg ttgccagggc 960
tggctctcta actcctggcc tcaagtgatc tgccgcctc a 1001

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<210> 207

<211> 1001

<212> DNA

<213> Homo sapiens

<400> 207

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aaaggtccat ttagttcaca acccttttca cgttcgtggt ttcaatttat gttccttgca 60
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aaccgcatca cctggctggt tcattacagc gctttgctca gcgcctttgg agaagcaaat 180
gtttccctgg cgagagcagt gaatataact ggtaagcatc tggctctggc tggatgtgat 240
ttatttgcca gtttttctag ttctttaaga agagatgttt tcagattctg atagtgtctg 300
ttcatttcag gcctgcataa catcctggat gtcgctgcgg aacacaatct gcaattgttt 360
gtgcctagca cgattggggc ttttggaacc acctctcccc ggaacccaac ccccgatctc 420
tgtattcaga gaccaggac catctatggg gtgtccaaag tccacgcgga gctcatggga 480
gaagtaagca tcaactcagc rgattgctga atgtgcctg gctgtcacga tttgctgttt 540
gctttctcat tcgttttgcc tccaaggcct ggtgattcat ccctggagga actttacctc 600
ttcttggaac ccagccccag agtcgcttac ttaactcact gggtttgcca ttagcagggt 660
gtctccagct cctgaaacct cctcagccat atgggaacac tcagcacttc ctgggtgccc 720
cgtgcccagc cccgatctct tcatttgcgt ctgtcttgt actccaccat tctttctggc 780
tctagtattt ggtagccatt ggtagtaact ctaaaacctg aaacatcttg ggtttgtttt 840
gtttgtttgt ttgttttatg agacagaatc ttgctctgtc acccaggctg gagtgtgggtg 900
gcgtgatctc agctcatagc agcctccgcc tcttgggttc aaggatcct catgcctcag 960
cctccgaagt agctgggatt ataggcacgt gccaccacac c 1001

```


<210> 208

<211> 20

<212> DNA

<213> Homo sapiens

<400> 208

acctctttcc agataagccc

20

<210> 209

<211> 20

<212> DNA

<213> Homo sapiens

<400> 209

ccaatggttt cggttactgt

20

<210> 210

<211> 213

<212> DNA

<213> Homo sapiens

<400> 210

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| acctctttcc | agataagccc | ttgaggtctc | gggctgacct | acacacacac | acacacacac | 60 |
| acacaccccc | ccccacacac | acacacgaca | gagaacatgc | cataaacatc | cttgaaccca | 120 |
| tgcaggaaag | cccatcccat | attctgaaaa | aatgccaaat | taggtttttc | tttctttttg | 180 |
| gaaatcagtc | attacagtaa | ccgaaaccat | tgg | | | 213 |

<210> 211

<211> 19

<212> DNA

<213> Homo sapiens

<400> 211

aaccagcat cctacaaag

19

<210> 212

<211> 17

<212> DNA

<213> Homo sapiens

<400> 212

catctggaac ccatgag

17

<210> 213

<211> 273

<212> DNA

<213> Homo sapiens

<400> 213

| | | | | | | |
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| aaccagcat | cctacaaaga | aaatacatgg | tctgtctacc | caaggtaga | gtgggagggg | 60 |
| atgtgagagt | ttgcagggag | gtgtgctggc | ccttatgtga | tctgtgataa | gacatcacct | 120 |
| ttatgcccac | cccaacagac | agaggttga | aaataacaat | accagacaca | cacacacaca | 180 |
| cacacacaca | cacacacaca | cacacacaca | cacgattcca | gcagccactc | agaaagaaaa | 240 |
| caaggaaatg | actttgctca | tgggttccag | atg | | | 273 |

<210> 214

<211> 1001

<212> DNA

<213> Homo sapiens

<400> 214

agtatcatcc ttcacaaagt tctttctatt ctttctactg tacaaagttt tctgttgctca 60

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ctccctccac cccttggtccc tgagcacagc atggtgacct gccagccag aggggtgacct 180
ggacactcat aactcaatgc agggccaact gtagcctctg gccggtgtcc ctgagtgagg 240
gcaaagttgt aataacactt gttctctcct ttctccaatt tgctcccaag ctccattgct 300
ttcggttcagg ccctcccccct tctagactgg gcagttccgc atccttggag ctcatcttctc 360
tgtcttcaga atctgatgct ccaattcatc ccatgtgtgg ctgccaaagg ctttctaaaa 420
ctcaaattgt gccctatcac cgcacagggt aaagccacca taaactcctc tgtgtttgag 480
aacaagggcc aagtctccca ytgaggcctc cagggagtgg acagtctggg tctcctttct 540
tctccaagca cgctgggccc atctgtcctg tccctgagga ctccctggca cacatgacac 600
ttcagagctt ttgccaaact cactccctgc ctgaaatgcc catctccttc agagagcttc 660
tatgtatcct tggagggtcca gtccctaatgt ccctgcctcc gataagacct ctccccatct 720
tcctctcgcc ctgctcctgt ccccgccagg catgacaaat ctcttccac agtggggccca 780
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ttaccagcct ggctctggag ctgtctcttt gccacatcgt ggggtgtctt taagggtgacc 960
ttgaatgtgc ttgaagctgt tttatgtcct atttgacagac c 1001

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 <213> Homo sapiens

<400> 215
 ctgggaatcc gagattgaaa 20

<210> 216
 <211> 20
 <212> DNA
 <213> Homo sapiens

<400> 216
 ggccataatc aaggcagaat 20

<210> 217
 <211> 288
 <212> DNA
 <213> Homo sapiens

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<400> 217
ctgggaatcc gagattgaaa tgaaagaaat cgaaagatct ttgcctacat acagaggtcc 60
agtaattggga tagggaatat attatccccg ggatagcgcc actgtactcc agccaggatg 120
acagagactc catctcaaat aaataaataa ataaataaat aaataaataa ataaataaat 180
acataaataa agtgcctctt tgtaaggca gttgtcttcta tttctacttt ttttaaccaa 240
gctaattgct aatgtgttaa agtacgagat tctgccttga ttatggcc 288

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<210> 218
 <211> 1001
 <212> DNA
 <213> Homo sapiens

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<400> 218
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cattaaacct cagcatcaga tgctgacagc cctcacagg ttgctgcaga caaacagggt 180
aacgacagga aaaagatgac cgtgatacgc tctgctaaaa gcaggtcgca aaacaggatg 240
tagataatga tcccatcttg cttttttaca aaaaaaaaaa aaggccatgg aaaattacat 300
atcacgaatg ttcagagtgg ctgtctctgg atgatggcat tggagttaat tttatctttc 360
actctatttt ctgaattttc tatatcaaaa gcaaattgat ggtgtgaagg ggaaagcata 420
tttaattgtg ttctctaaaag gctcagccct cctgcagatg attgagcact gaaagaagag 480
ggttctgtca cctctttcgt sctgacccct gccttttcta atgttgctca gaggcacaca 540
gacgtatttg ctttaagtaa ttgcttgtct gtttttaata tcacattttg aaaagggtatt 600
tagacaacat gaggtttatta ctttctgttt aacccaaatc cttcagaggt acttaaaagca 660

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| | | | | | | |
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| aaatgtaaag | tctctttatc | cctttgtgaa | tttcagtc | cagaagtctc | actgttagta | 720 |
| gtttgatttt | tacaaaaaat | gtccagggtat | tttcttttca | tctgcaaata | tgtaaataga | 780 |
| ctcctttttt | taaatttcac | acaagcagga | ttatatcata | caaaacattc | tgcaatttac | 840 |
| tctttttcatg | taacaataat | gtatcctggg | tatttttctt | tgccagttca | gatctctttt | 900 |
| atcctttttac | taattttatt | acctatctat | tcatttgctt | aacttgattt | tattattata | 960 |
| caagttatcc | atgaatatgt | ttttcaaaaa | tttaaacagt | c | | 1001 |

<210> 219
<211> 1001
<212> DNA
<213> Homo sapiens

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| atacacatgc | aaacacatac | acatgtccac | gcatgcacat | atacacacac | acgcacacat | 60 |
| atacatgtgc | acatatgcac | agatgcaatg | aacacgtgtg | caacacatgt | acacacctta | 120 |
| cacgtacata | tgcacacaca | cacacaactc | caaagcaaga | cccctctgct | tctccgagcc | 180 |
| acagcagtga | atgcaagaca | gggatggaag | caggggagtg | agttctaccc | ttcgtggcct | 240 |
| ccgggggtgtc | cttgagcctc | tcaagcctca | gtttactggg | gtctatgtga | ggatagacta | 300 |
| gtttcacagc | tcaaaggcag | gcggtccttc | agtgctgaga | aatcttcac | tcagagccag | 360 |
| gccctgcctg | cccagggcag | tccagacata | ccacagaggc | aggggatcca | ggttttgtga | 420 |
| aactgaagct | gataggatct | gaggctcgtc | ttacaaagga | caccaaattg | tcagaagcca | 480 |
| tcagggacgg | ggcctcagag | magccaggca | agtgaggggt | ctaaagcacc | agcttgggaa | 540 |
| gcgtcactgc | gtggagagcg | ggctcctggg | ctcatcgccc | gaggcaccgc | acacaagtgc | 600 |
| agcctacaaa | atggagagaa | aagcccttga | tgaatgaact | ccctaaggcc | aggctcgggt | 660 |
| tccttagaga | ctgggggcac | agctgcaccc | gggcagggtc | ggggagacag | tttgcagcct | 720 |
| ctgggctgag | gctgggggtg | gggtgtggag | gggctgtggc | aacagcatgg | cgtacgcctc | 780 |
| tgggtgtcct | tttgcaagta | ggtgatgaga | gaggcacatt | ggctgaggga | aactggagga | 840 |
| tgggaagggg | ttgaggcagg | ggaactgaca | ggagaggaaa | gagccttaag | tcaaacagga | 900 |
| ccgcggaaaa | ccaagcgtcc | acaacgagaa | cgaggggtcc | gtgcctgacc | cctggcgggg | 960 |
| aggcgtggtg | ctgctcgagg | taggcgcgga | ctcggggaac | c | | 1001 |

<210> 220
<211> 20
<212> DNA
<213> Homo sapiens

| | | |
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| <400> 220 | gcagcctcta accacatgct | 20 |
|-----------|-----------------------|----|

<210> 221
<211> 20
<212> DNA
<213> Homo sapiens

| | | |
|-----------|-----------------------|----|
| <400> 221 | ctttgcatgg cttcctatgg | 20 |
|-----------|-----------------------|----|

<210> 222
<211> 380
<212> DNA
<213> Homo sapiens

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|------------|------------|------------|------------|------------|------------|-----|
| gcagcctcta | accacatgct | gaccatgcc | atggctctct | aagcacacat | gtacacacac | 60 |
| acactctcac | acacataaaa | acacagactc | acacacacac | ggacaaacac | aaacacatac | 120 |
| acagactcac | acagacacgc | aaactcacac | acagacagac | acacacacag | acacacagac | 180 |
| tcacacacac | aaactcacac | agacacacaa | atacacagac | tcagactcaa | acacaaactc | 240 |
| acacaaacac | atttacacaa | actcacaaac | tcacacacac | aaacacacac | acaaacacgc | 300 |
| aaacttacac | acacatgagc | agacacacac | ccggcccttc | tgggctcttc | ttttcttact | 360 |
| ccataggaag | ccatgcaaag | | | | | 380 |

<210> 223

<211> 20
 <212> DNA
 <213> Homo sapiens

<400> 223
 gaatgggcac atccataggt 20

<210> 224
 <211> 19
 <212> DNA
 <213> Homo sapiens

<400> 224
 cgcccttcct tatccctct 19

<210> 225
 <211> 257
 <212> DNA
 <213> Homo sapiens

<400> 225
 gaatgggcac atccataggt tctgattttg acacatggcc aagactatca agtgagggga 60
 aagggtgcag aaaaacacat acatgcagca tgatgtacac acacacacac acacacacaa 120
 ttttatgttc atcacacaca tgcataattg tgtaaacatg cagcaaagg atcccagtga 180
 taccaaccaa agagagcccc gtgacctccg aggagggagc ggctggggct gtcagcgcag 240
 agggataagg aagggcg 257

<210> 226
 <211> 25
 <212> DNA
 <213> Homo sapiens

<400> 226
 gagactgaca atctcctcgt cttat 25

<210> 227
 <211> 25
 <212> DNA
 <213> Homo sapiens

<400> 227
 ctattgccta gcttagcaca tttga 25

<210> 228
 <211> 125
 <212> DNA
 <213> Homo sapiens

<400> 228
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 aatag 125

<210> 229
 <211> 21
 <212> DNA
 <213> Homo sapiens

<400> 229
 cctaagcatt tcttggett c 21

<210> 230

<211> 22
 <212> DNA
 <213> Homo sapiens

<400> 230
 cagtgagagc accctacttt ga 22

<210> 231
 <211> 153
 <212> DNA
 <213> Homo sapiens

<400> 231
 cctaagcatt tcttggttc cccaggtgc cctgtttttg aattaacctg agattatggc 60
 agaccacaag ggctgcatca caccaagttc tccccaagat ttgccatatt tcctctacca 120
 ccaggtgggg ttcaaagtag ggtgctctca ctg 153

<210> 232
 <211> 20
 <212> DNA
 <213> Homo sapiens

<400> 232
 tccacagcag ggttcaataa 20

<210> 233
 <211> 20
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 <213> Homo sapiens

<400> 233
 cccactcatc catctatcca 20

<210> 234
 <211> 275
 <212> DNA
 <213> Homo sapiens

<400> 234
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 tggatagggt gattgataga tgatggatgg atggatggat ggatggataa atggataaat 180
 ggatggatgg atggatggat atctggatgg atggataaat ggatggatgg atggatggat 240
 gaatagatta ttagatggat agatggatga gtggg 275

<210> 235
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 <212> DNA
 <213> Homo sapiens

<400> 235
 ggctcgctcc agctttatct 20

<210> 236
 <211> 19
 <212> DNA
 <213> Homo sapiens

<400> 236
 gggatgatgca tagcagacg 19

<210> 237

<211> 268
 <212> DNA
 <213> Homo sapiens

<400> 237
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 tgtgtgtgtg tgtgtgtgtg tgtgtgtgtg ttggctccaa aggtttattc acgaatagat 120
 cccaaagaaa tgtcacagag aaatagtgac ttgaagtcca aagaggaaaa aaaggaggagc 180
 cgcaggcaca tgatggatct gtgcaatagt catacgtaag ccgccgtgat gtccacacca 240
 cggagacccc gtctgctatg catcaccc 268

<210> 238
 <211> 1001
 <212> DNA
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<400> 238
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 tgtgaattat ttttaatttct ggatattaaa ctgcacagta gctattttat ttgcctttaa 720
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 agctaagatt ttatttgctt tctgttagat cacagtagtg c 1001

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 <212> DNA
 <213> Homo sapiens

<400> 239
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<210> 240
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 <212> DNA
 <213> Homo sapiens

<400> 240
 gatccttact ccagcccaca 20

<210> 241
 <211> 359
 <212> DNA
 <213> Homo sapiens

<400> 241
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 aaggtcttgc tccattgccc aggctggagt gcagtggcgt gatcatggct cactgcagtc 120
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 gtcttgaact catgagctca agtgatactc ctgcctcagc ctcccaatgt gctgggatta 300

caggcataag ccacgtgcc tggcctcagt gagtggtttt gtgggctgga gtaaggatc 359

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 <213> Homo sapiens

<400> 242
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<210> 243
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 <212> DNA
 <213> Homo sapiens

<400> 243
 tcccacacta cactgatgta aagaa 25

<210> 244
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 aaaaaaaaaa aaaaaaaaaa aaaaattagc aaggcatggc agcatgcacc tgtagtccca 240
 gatacttggg aggctgaggt gggaggattg cttgagccta ggagggttag gctgcagtga 300
 gccgagatcg cagcactgta ctccagcctg ggggacagag tgagaccctg tctcacaaaa 360
 agtttttctt tacatcagtg tagtgtggga 390

<210> 245
 <211> 1001
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 <213> Homo sapiens

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 aggtaaatat ttattatata tttatgcaaa aggaaaagta atcttactaa ctttgaaagg 420
 gaaaaagaga gagcaagggt tgctgtggacc tcagtgtgag gtgagaggcc tagggctgga 480
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 tttccaagga aagggcattg tttctgtgcg ctctagattc tcagatgtga gagctgggca 720
 taaacaaaga attaatactc tgtgtctttt cttgtctgtt ccccccaact cagtagatat 780
 gtttgacgac ttctcagaag gcagagagtg tgtcaactgt ggggctatgt ccaccccgct 840
 ctggaggcga gatgggacgg gtcactatct gtgcaacgcc tgcggcctct accacaagat 900
 gaacggcatc aaccggccgc tcatcaagcc tcagcgccgg ctggttaagca cgtgcctcgc 960
 agcctcctct gggcacctgg ctgcggagct ctgcgcttgg t 1001

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 <213> Homo sapiens

<400> 246

ttctggcctt aggaaagtgc 20

<210> 247
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<400> 247
 ccagaccaca gaagctactc c 21

<210> 248
 <211> 424
 <212> DNA
 <213> Homo sapiens

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 ttgccagtat tgtttcaagt ctgtcctctg tcctttgatt gtgcttatga tgtctcttgg 180
 catttgggat tttaaatttt tatatcatca acggtgggta tttttcttgg ttgcttgtag 240
 gtttccctt ttgctaaaaa aaggccctt ctgccccag agaaagtcac atgccttcta 300
 ttttctgaag ttttataact tgtaaaaatg tttagaagtg tagtctttat ttgtgtggcc 360
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 ctgg 424

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<210> 250
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 <213> Homo sapiens

<400> 250
 cactgcaagc ctagagaagg a 21

<210> 251
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 tgaggcagga gaatcacttg gaccaaggag gcagaggttg cagtgaactg agatcgcgcc 180
 attgcactcc agcctgggtg acagagagag actctgtccc aaaaaataaa ataaaaataaa 240
 aataaataca taaaaataaa taaaaataaa gtccttctct aggccttcag tg 292

<210> 252
 <211> 20
 <212> DNA
 <213> Homo sapiens

<400> 252
 gaagatttgg ctctgttggg 20

<210> 253

<211> 25
 <212> DNA
 <213> Homo sapiens

<400> 253
 tgtcttactg ctatagcttt cataa 25

<210> 254
 <211> 142
 <212> DNA
 <213> Homo sapiens

<400> 254
 gaagatttgg ctctgttgga gacagactca tagatagata gatagataga tagatagata 60
 gatagataga tagatagata gatgatagat agatcttatt taaaagtta ttaacttatt 120
 atgaagctat agcagtaaga ca 142

<210> 255
 <211> 20
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 <213> Homo sapiens

<400> 255
 tgggagattt cagcctttca 20

<210> 256
 <211> 20
 <212> DNA
 <213> Homo sapiens

<400> 256
 tcaaagacca gtgccagaga 20

<210> 257
 <211> 352
 <212> DNA
 <213> Homo sapiens

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 acacacacac acacacacac actctatatg atagattata acagatgtat ctttcaaaag 180
 tagaactgaa atttagacct aaaagataat atactttaat tgtagagag gatatttttc 240
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 gttacccctt gagacttcac acactactta tatctctggc actggtcttt ga 352

<210> 258
 <211> 20
 <212> DNA
 <213> Homo sapiens

<400> 258
 tgggagattt cagcctttca 20

<210> 259
 <211> 20
 <212> DNA
 <213> Homo sapiens

<400> 259
 tcaaagacca gtgccagaga 20

50/55

<210> 260
 <211> 352
 <212> DNA
 <213> Homo sapiens

<400> 260
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 acacacacac acacacacac actctatatg atagattata acagatgtat ctttcaaaaag 180
 tagaactgaa atttagacct aaaagataat atactttaat tgttagagag gatatttttc 240
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 gttacccctt gagacttcac acactactta tatctctggc actggtcttt ga 352

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<400> 261
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<210> 262
 <211> 21
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<400> 262
 agcctggtct ctaccataag c 21

<210> 263
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 <213> Homo sapiens

<400> 263
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 caatttttta aagcgctgag accatgcctg ttacatagta ggcacttaac acacgctgat 120
 tattttacatc taaatcttca caaccaccct aagaagtaca tgttattatt cccatcttac 180
 aatagagaaa ataagctcag attaattaat tttcttgggt cttacagcaa gtaagtgatg 240
 gtactgggtat ctgtacttat attgaatggt ttgactgtaa aattcttctt ttctctatat 300
 caaatagtcc cacgaggaat gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt 360
 attttaaatg agaaccaagc aaaagcttat ggtagagacc aggct 405

<210> 264
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 <212> DNA
 <213> Homo sapiens

<400> 264
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<210> 265
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 <212> DNA
 <213> Homo sapiens

<400> 265
 atgggaagga atttgggact 20

<210> 266
 <211> 171
 <212> DNA

<213> Homo sapiens

<400> 266

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tccttgcaaa tgtctctttc ttccccctgg taccataccc ctgtatctct taagacaaca 60
cacacacaca cacacacaca cacacacaca ttctctccct ctctcactcc ctactttttt 120
ccttcccact gagagattca aaccttcaaa aagtcccaaa ttccttccca t 171
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<210> 267

<211> 20

<212> DNA

<213> Homo sapiens

<400> 267

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caccattctg tcggctgtaa 20
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<210> 268

<211> 20

<212> DNA

<213> Homo sapiens

<400> 268

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aaagggttg gtaactcctc 20
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<210> 269

<211> 180

<212> DNA

<213> Homo sapiens

<400> 269

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caggaagctt ttactcatgg ttgaagggtga atgcagagca ggtatatcac atgggtgagag 120
ggggagttag agagagagag agagagagag agagagagag gaggagttac caagcccttt 180
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<210> 270

<211> 20

<212> DNA

<213> Homo sapiens

<400> 270

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cacgaccaca ccagcctaata 20
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<210> 271

<211> 18

<212> DNA

<213> Homo sapiens

<400> 271

```
aaaggcaggc aggcacag 18
```

<210> 272

<211> 195

<212> DNA

<213> Homo sapiens

<400> 272

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tgtgttttgg tagaggcaga gtttcactat gttgccagg ctggtcttga actcctgggc 120
tcaagtgatc tgccccacct cggcctcccg aagtgtctggg attacagggtg tgagcctctg 180
tgctgctg ccttt 195
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<210> 273

<211> 20
 <212> DNA
 <213> Homo sapiens

<400> 273
 gaatggaagc aaggatgagc 20

<210> 274
 <211> 21
 <212> DNA
 <213> Homo sapiens

<400> 274
 gacgctgggc tatttcaggt g 21

<210> 275
 <211> 304
 <212> DNA
 <213> Homo sapiens

<400> 275
 gaatggaagc aaggatgagc tgctgcattt ctgtagctgg cattcagctc aagaatacgt 60
 aaaaccagac tcgtgggtttt ttctttcttt ctttctttct ttctttttga atgtgaggcc 120
 tttacagaaa aagaaaatgt cagtctgatt atccagggca tgaggataaa gagaagccca 180
 aacaaagggt tccccactc caccaccacc aatatactgt ggccactagaa aacgattcca 240
 gaatcagaaa ctatatgctg acgtccatta gccctcttag tagcacctga aatagaccag 300
 cgtc 304

<210> 276
 <211> 20
 <212> DNA
 <213> Homo sapiens

<400> 276
 caatcaagcc tgtgtcgagt 20

<210> 277
 <211> 20
 <212> DNA
 <213> Homo sapiens

<400> 277
 aggaaggcat ttgaatgagc 20

<210> 278
 <211> 169
 <212> DNA
 <213> Homo sapiens

<400> 278
 caatcaagcc tgtgtcgagt taagaattaa atgggagggt gcagtgagcc aatatcatgc 60
 cactgcactc caggctgggc gacaggataa gactccatct caaaataaaa aaaataaaaa 120
 aataaagggt tgtatttctt ttttcttaag ctcattcaaa tgccttcct 169

<210> 279
 <211> 20
 <212> DNA
 <213> Homo sapiens

<400> 279
 ggatggcctt tggtaactga 20

<210> 280

<211> 24

<212> DNA

<213> Homo sapiens

<400> 280

ggaaatgaac atgataacat ctgg

24

<210> 281

<211> 175

<212> DNA

<213> Homo sapiens

<400> 281

ggatggcctt tggtaactga tctcatgacc aatattaagc tgtgagctct cttttccgaa 60
 tttttacatt atcctcttac aaccacctcc ctcaacacac acacacacac acacacacac 120
 acacacacac actctctctc acactcccca cccagatgtt atcatgttca tttcc 175

<210> 282

<211> 20

<212> DNA

<213> Homo sapiens

<400> 282

ccatttacgc tttggtctgc

20

<210> 283

<211> 20

<212> DNA

<213> Homo sapiens

<400> 283

ccctttgtca agtgctttca

20

<210> 284

<211> 102

<212> DNA

<213> Homo sapiens

<400> 284

ccatttacgc tttggtctgc agagactatt aattatttgg ttgtttttgt tttcatgttt 60
 gaataagcac agattctggc attgaaagca cttgacaaag gg 102

<210> 285

<211> 20

<212> DNA

<213> Homo sapiens

<400> 285

ttccgaggta agcctttgtg

20

<210> 286

<211> 20

<212> DNA

<213> Homo sapiens

<400> 286

accctctttc agagccagg

20

<210> 287

<211> 307

<212> DNA

<213> Homo sapiens

<400> 287

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ttccgaggta agcctttgtg gccctgacc ctaatacaga agagacacta atttattttc 60
ctgctctgtg gtcccagagt tatgtgaatt tccttttgaa attcatcatg catatattatt 120
tatttattta tttattttatt tatttaagca tatttctcta tcagagtata cctgtcacca 180
tggcagggat ttgtctgect ctttctcttt cactgaagta cccacagtac ccggcatagt 240
gctggcgctg ttcaggggtgc ccggtaaact tgtgtgaatg aatttttacc tggctctgaa 300
agaggggt                                     307

```

<210> 288

<211> 20

<212> DNA

<213> Homo sapiens

<400> 288

```

aatcgctgct acagggacac                                     20

```

<210> 289

<211> 24

<212> DNA

<213> Homo sapiens

<400> 289

```

aactgcataa atatttgacg tgga                                     24

```

<210> 290

<211> 113

<212> DNA

<213> Homo sapiens

<400> 290

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aatcgctgct acagggacac acatatctct ctatccatac acacacacac acacacacac 60
acacacacac gtgtacgtat ttctagtatt ccacgtcaaa tatttatgca gtt       113

```

<210> 291

<211> 20

<212> DNA

<213> Homo sapiens

<400> 291

```

gtccaggctc acctgaagtc                                     20

```

<210> 292

<211> 19

<212> DNA

<213> Homo sapiens

<400> 292

```

cggagggagc taggaacag                                     19

```

<210> 293

<211> 138

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 106

<223> n = A,T,C or G

<400> 293

| | | | | | | |
|------------|------------|------------|-------------|------------|------------|-----|
| gtccaggctc | acctgaagtc | tgagattttg | ggagctttgg | agaattctgg | ataaaatccc | 60 |
| ttactggact | tagcaggaat | ctccgatctg | tgagagaagtc | tcctcnagag | actgagcatc | 120 |
| tgttcctage | tcctccg | | | | | 138 |